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Insist Upon It!

FRUIT GROWERS generally have come to depend on "Elephant" Brand Sprays. They find them absolutely reliable, efficient and of guaranteed quality.

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"ELEPHANT" Brand**

Apples and Pears will be Scarce

Owing to the ravages of thrip, there will be a short crop of Apples and Pears this season. Every precaution should be taken to guard your crop from CODLIN MOTH by spraying with

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ONCE USED, ALWAYS USED

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WRITE FOR PRICES AND PAMPHLET

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Contents for July, 1932.

Illustrations.

Valencia Oranges, Irregular Bearing	349, 50
New Canning Machinery	351
Fruit Fly Emergence Diagram	361
Advertising Australian Apples	357
Lalla Apple	359, 360
C. C. Whitley's Citrus Grove, Mildura	363

Subjects.

Advertising Fruit	390
Answers to Correspondents	364
Apple Varieties Raised in Tasmania	359
Australian Apple and Pear Export	366
Bathurst District, N.S.W.	353, 4
Canning Machinery, New	351
Citrus Crop in South Australia	384
Citrus Maturity Standards	363
Citrus Notes	349, 50, 51, 54, 56, 57, 63, 84, 86
Citrus Root Weevil	354
Drainage of Orchard Land	389
Dried Fruits	386
Farm Produce Agents Act, N.S.W.	354
Fruit Census—Are Figures Reliable?	348
Fruit Fly Trapping Experiments	361, 362
Fruit Markets in India	356, 7
Grape Exports	372
Green Manuring	376
Imperial Fruit Show	363, 375
James v. South Australian Government	348
Kyabram Cannery	371
Lemons, Harvesting of	374
Manurial Method	377
Marketing Bill	370
Market Notes and Prices	382, 3, 4
New South Wales	349, 350, 353, 4, 379
New Zealand	357
Ottawa Conference	352
Passionfruit	357, 369
Picking Oranges	363
Poultry Notes	386-8
Pruning Notes	353, 372, 377, 391
Queensland	351, 358, 388
Removal of Spray Residue	371
South Australia	366, 367, 377, 379, 381
South Australian Fruit Marketing Association	377, 9
Spraying	353, 4
Tasmania	365
Thrips Reduce Prune Crops	362
Tomato Growing Competition	373
Utilising Waste Apples	375
Valencia Oranges—Irregular Bearing of	349, 50
Victoria	350, 351, 5, 6, 7, 369, 70
Victorian Fruit Marketing Association	355
Western Australia	360

SHOW DATES.

Brisbane Royal—August 8 to 13.
Adelaide Royal—September 10 to 17.
Melbourne Royal—September 15 to 24.
Queensland—
Caboolture—July 14 and 15.
Nambour—July 20 and 21.
Mt. Gravatt—July 23.
Wynnum—August 26 and 27.
Mary Valley, Imbil—September 2 and 3.
Enoggera—September 3.
Mildura, Vic.—July 22 and 23.

INDEX TO ADVERTISERS.

Canning Machines—
Austral Otis Andebar Cannery Equipment Pty. Ltd., South Melbourne, p. 393.
Cold Storage—
Bender & Co., Launceston, Tas., cover ii.
Fruit Buyers—
Brooke, C. M., & Sons, S. Melb., p. 387.
Fruit Tree Suppliers—
Adamson, Thos., Ermington, N.S.W., p. 384.
Bunning, John, & Sons, Somerville, p. 377.
Ferguson, F., & Son, Hurstville, N.S.W., p. 385.
L. P. Rosen & Son, Carlingford, N.S.W., p. 378.
McKee, Geo., Ermington, N.S.W., p. 380.
Nobelius, C. A., & Sons, Emerald, Vic., p. 380.
Goodman, C. J., Picnic Point Nurseries, Bairnsdale, Vic., p. 375.
Spurway, F. E., Marsden-road, Ermington, N.S.W., p. 379.
Swane Bros., Ermington, N.S.W., p. 378.
Fruit Graders—
"Lightning," Lightning Fruit Grader Co., 517 Albion-street, W. Brunswick, N.12, Vic., front cover.
Manures, Fertilisers, &c.—
Sulphate of Ammonia, Nitrogen Fertilisers Pty. Ltd., Melb., p. 381.
Patent Attorney—
U'Ren, Geo. A., Melb., p. 388.
Poultry—
Karswood Poultry Price, Agents all States, p. 386.
Refrigerating Machinery—
Werner, R., & Co. Pty. Ltd., Richmond, cover iii.
Spray Materials—
"Aero" Arsenate of Lead, A. M. Bickford & Sons Ltd., Adelaide, Sth. Aust., p. 367, 368.
"Black Leaf 40," Tobacco By-Products and Chemical Corp., p. 389.
"Blue Bell" Arsenate of Lead, Lime, Sulphur, etc., Blyth Chemicals Ltd., Elsternwick, V., p. 339.
"Cooper" Sprays, William Cooper & Nephews (Aust.) Ltd., Sydney, and agents, back outside cover.
"Elephant" Brand, Jaques Pty. Ltd., Burnley, V., p. 346.
"Gargoyle" Spraying Oil, Vacuum Oil Co. Pty. Ltd., 90 William-street, Melbourne, p. 341.
"Shell Spraying Oil," Shell Co. of Australia Ltd., Melbourne, p. 365.
Lion Brand, Orchard Sprays Pty. Ltd., 9 Cremorne-street, Richmond, p. 385.
"Plane" Brand, Chemical Dusts, N. N. McLean Pty. Ltd., Melbourne, p. 391.
"Vallø" Sprays, Victor Leggo & Farmers, p. 344.
"Neptune" Spraying Oils, Neptune Oil Co. Ltd., Richmond, Vic., and all States, p. 345.
"Red Rose 40%," Boyd, D. T., & Co. Ltd., London, England, p. 380.
"Pysect," Jas. A. Gore, Sydney, N.S.W., p. 383.
Orchard Implements—
Oliver Ploughs—Malcolm Moore Ltd., Williamstown-road, Port Melbourne, p. 374.
Spray Pumps and Guns—
Cameron, Sutherland & Seward Pty. Ltd., Sth. Melb., p. 378.
Excelsior Supply Co. Ltd., p. 385.
Russell & Co., p. 387.
Webster, A. G., & Sons Ltd., Hobart, Tas., p. 386.
Strapping Fruit Cases—
Gerard Wire Tying Machines Co. Pty. Ltd., W. Melb., p. 372.
Transport—
Port of Hull, London and Nth. Eastern Rly., P. E. Potts, 7 Bridge-street, Sydney, p. 374.
Port of Manchester, Capt. W. J. Wade, Sydney, p. 376.
Interstate Shipowners, p. 388.
Tree and Stump Pullers—
Trehwella Bros., Trentham, p. 394.
"Digger," Quick Mfg. Co., Stumping Jacks, etc., p. 390.

CHILDREN'S HOSPITAL, CARLTON, VIC.

The Committee of the Children's Hospital is making a Special Appeal for the sum of £40,000. The appeal is sanctioned by the Charities Board of Victoria, and covers the period July 1 to August 31.

The two main objects are to provide essential equipment for the parent hospital at Carlton, and to open the unoccupied portion of the Orthopaedic Section at Frankston. At the latter, provision is made for 100 patients, and it has only been possible to open less than half of the institution. This section is exclusively for the treatment of crippled children, and the results obtained to date have been most encouraging, as evidenced by the fact that many children who were in the past classified as permanent cripples are now being either completely restored to normal health or at least relieved to such a degree that they can be discharged with the assurance that they can earn their own livelihood.

Editorial Chats



FRUIT CENSUS, ARE FIGURES RELIABLE?

CALCULATIONS of national, and even international importance are made on the official figures supplied regarding Australian fruit production.

But are our figures reliable? This question is frequently being asked, and it is disturbing to find that in responsible quarters the official figures are not always taken seriously.

The Commonwealth Statistician depends on the figures supplied by State authorities, and if these be unreliable the final figures will be hopelessly astray. Whatever may be the procedure in the other States, there is certainly room for improvement in Victoria. Growers are asked to fill in certain details for the Statist, and the belief is all too generally held that the figures supplied are much underestimated. For some reason or other growers (or some of the unthinking ones) have the idea that the Statist's figures are in some way related to Income Tax returns, and so in all too many instances the crop figures are understated.

Instances are known where growers have quite deliberately underestimated their returns.

At a recent interstate fruitgrowers' conference, it was stated that Tasmanian figures had been known to suffer similarly. In one instance the total crop of Apples was published at a stated figure, yet the ascertainable figures for shipping overseas and interstate were heavily in excess of that figure—apart from the quantity used in local consumption, for cider and drying.

This is a matter which requires adjustment. It would be a pity if the Statist finds he cannot rely on the figures supplied by growers. In this event, how shall the production figures be compiled? Certain it is that reliable figures are imperative. We need to know our total production in order to be able to arrive at our local consumption. Matters of high policy are at stake. Our production figures have a big bearing on Empire policy.

Wherever weaknesses have existed in the past, these should be overcome. The situation needs to be faced quickly, and nothing should be allowed to stand in the way of securing reliable figures regarding Australian fruit production.

PERSONAL.

Mr. J. M. Balfour, chairman of the Victorian Dried Fruits Board, presided over a meeting of the Board held at Mildura early in June.

Cr. A. W. Fairley, managing director of the Shepparton Preserving Company Ltd., was sworn in as a J.P. early in June, and welcomed to the bench.

Mr. R. Crowe, Director of Agriculture, who was due to retire in June, has had his period of service extended to December 31 next.

Mr. H. J. Bishop, of Silbert, Sharp & Bishop, and President of the South Australian Fruit Marketing Association, was accorded a send-off by members of the Wholesale Fruit Merchants' Association on June 11. Accompanied by Mrs. Bishop, he is leaving on the "Nieuw Holland" for a trip to the Near East and Colombo.

DRIED FRUIT CASE.

Privy Council Allows Appeal by F. A. James.

James Gets Verdict for £12,000. Costs Amount to Over £25,000.

CABLED advices from London state that the Privy Council has allowed the appeal of James versus Cowan and others.

This legal case has been before the courts some six years.

The case commenced when Frederick Alexander James, of Berri, South Australia, sued the South Australian Minister for Agriculture, Mr. Cowan, and the Dried Fruits Board, claiming damages for the alleged wrongful seizure of his fruit. The seizure was effected under the Dried Fruits Act of 1924 of South Australia. Though commenced in the Supreme Court of South Australia, the case was heard in the High Court before Mr. Justice Starke, in June, 1929. The action involved the question as to whether the South Australian Act was invalid as being in contravention of section 92 of the Commonwealth Constitution—interfering with freedom of trade between the States.

Mr. Justice Starke dismissed the action, stating he felt bound by the High Court's decision in the wheat case, decided in 1915, to hold that the Act was valid. In case he was wrong, however, he assessed the damages at £12,145.

James appealed to the full High Court against the decision, the appeal being heard in Melbourne in March, 1930. Sir Adrian Knox, then chief Justice, Mr. Justice Gavan Duffy, and Mr. Justice Rich, agreed with the decision of Mr. Justice Starke, that the judgment in the wheat case gave James no cause for action. Mr. Justice Isaacs (as he then was) expressed the contrary view, tabling a lengthy statement in favor of allowing the appeal and entering judgment for James for the damages assessed: the view was expressed that the South Australian Dried Fruits Act was a violation of the constitution.

From this majority decision of the Full High Court, James appealed to the Privy Council.

As stated in the opening paragraph, the Privy Council has allowed the appeal, and James now gets the verdict for £12,145, also costs.

In a press interview, Mr. James said the decision of the Privy Council would have far-reaching effects in the industry.

So far only the bare decision of the Privy Council is known. Details will be available shortly. In the meantime, the several matters involved in the case are being discussed, particularly as to whether the control legislation contravenes the Commonwealth Constitution.

One legal opinion so far expressed here suggests that the Privy Council's decision was probably given on the wording of the South Australian Dried Fruits Act.

PERSONAL.

Congratulations to Mr. "Bill" Young on being elected President of the Northern Victoria Fruitgrowers' Association for the seventh term. Mr. Young represented Australian canning fruitgrowers recently on the Sugar Enquiry Committee.

Irregular Bearing of Valencia Oranges.

Investigation by Council for Scientific and Industrial Research.

(By C. Barnard, Division of Plant Industry, C.S.I.R., and E. S. West, Officer-in-Charge, Commonwealth Research Station, Griffith, N.S.W.)

GROWERS OF VALENCIA ORANGES in the Murrumbidgee Irrigation area have been alarmed as well as inconvenienced for some years now by the irregular cropping of their trees. The subject was discussed at a joint meeting of the Advisory Boards of the Merbein and Griffith Commonwealth Research Stations at Mildura in November, 1929, when a resolution was passed recommending that an investigation of the problem should be made. The Commonwealth Research Station at Griffith, in conjunction with the Division of Plant Industry of the C.S.I.R., subsequently undertook to make the requisite studies.

Preliminary investigation showed that the problem was one of *alternate* or *biennial* cropping rather than that of *irregular* cropping, as originally suggested. This fact is illustrated in Charts 1 and 2, in which the average yields per tree in the M.I.A. for eight years (1923-1930) are shown. In Chart No. 1 the average yield is based on the number of bearing trees and the total yields of the area, as supplied by the Government Statistician of N.S.W. The yields of Valentias have, it will be observed, fluctuated from season to season to a very marked extent, as have also those of the Washington Navel, which are illustrated for purposes of comparison.

The average yield of the Valencia was high in 1923 and 1925, and low in the alternate years 1924 and 1926. The expected heavy yield of 1927, however, was curtailed by some agency, and the alternation in the cropping reversed; 1927 and 1929 being years of low yield and 1928 and 1930 years of high yield. Comparable figures for the 1931 season are not yet available, but it may safely be stated, from the data in hand in respect to the amount of fruit packed, that the season was one of low yield, and also that the promise of a high yield this season indicates a continuation of the biennial fluctuation.

The yields of the Washington Navel have also fluctuated considerably according to Chart 1, but this apparent fluctuation is due mostly to the fact that large numbers of young trees have come into bearing in some seasons (1924, 1926, 1928), and have materially reduced the average yield in those years. By assuming yields below average from trees in their first and second year of cropping and eliminating these from the calculations, the average yield per tree becomes as shown in Chart 2. Comparatively little difference is made to the relative yields in the case of the Valentias and the biennial cropping habit is still very marked. In the Washington Navels it will be observed, however, that the yields are really fairly even, though they show a steady increase throughout the whole period.

The seasons of high and low yield are the same for the Washington Navel and the Valencia, and apparently the same factors have been responsible for the below-average yields in 1924 and 1927. But, whereas the regular cropping habit of the Navel has not been affected to any appreciable extent by the low yields of these seasons, the Valencia has been thrown into the biennial cropping habit.

In most citrus fruits

alternate cropping is evident

to a certain extent. Some varieties of Mandarin in par-

ticular show a marked alternation. In these cases practically no crop is produced in the "off" year, and it is characteristic that some trees in a plantation are in their "off" year whilst others are in their "on" year. In the case of Valentias, however, the "off" and "on" seasons are, with very few exceptions, the same in all trees throughout the district.

The variation in yield in the Valencia may definitely be regarded as a result of a variation in the amount of blossom produced in alternate seasons. General opinion is, though no precise data are available, that approximately the same percentage of blossoms sets at the beginning of the "off" and "on" seasons. In all seasons there is normally a very heavy drop of blossoms in both the Valentias and Navels. The low yields in 1924 and 1927 may possibly have been due to factors affecting the set of the blossoms, but the subsequent low yields of 1926 and 1929 were due to the failure of the trees to form sufficient blossom in these seasons.

These considerations immediately suggested two possible lines of investigation; one with the object of increasing the number of flowers setting in the "off" years, and the other with a view to increasing the number of blossom buds produced in the "off" year.

It is very unlikely that the setting of the Valencia is affected by pollination factors. All available evidence shows that

cross pollination is unnecessary,

and there is no positive evidence to show that even self-pollination is necessary for the development of citrus fruits. This fact is most surprising, as the flowers of the Orange are so elaborately equipped to invite insect visitation. It is generally held, however, that not even the stimulation of pollination is necessary to produce

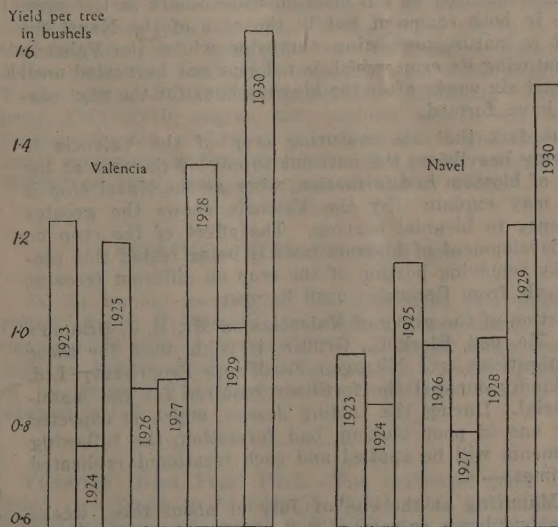


Chart 1.

Yield per tree in bushels, 1925-1930. (See letterpress.)

seed or to induce setting. On the other hand, it appears extremely probable that lack of nutrients and water is the most direct cause of abscission of flowers and young fruits. The nutritive requirements of flowers and setting fruits are very high, and competition between them is acute; any temporary failing of the supply being sufficient to cause the drop of large numbers.

Experiments have therefore been designed to discover the effect of the following treatments on the setting of the fruits in the Valencia:—

(1) Light applications of nitrogen with water prior to flowering, and again just prior to the December drop.

(2) Pruning of young rapidly-growing shoots at flowering time and just prior to the December drop.

The first step taken in regard to the problem of increasing the number of blossom buds formed in the "off" year was to determine the time when the blossom buds actually arise. It was found that the differentiation of the blossom buds in both the Washington Navel and Valencia takes place just prior to and during bud burst. This information has been used in planning a manurial experiments which is outlined below. The fact, however, that the Navel and Valencia initiate their blossom buds at the same time, though they do not ripen their fruit at the same time, suggested that there might be a correlation between the stage reached by the maturing crop at the time of the differentiation of the blossom buds for the following season and the tendency of a variety to biennial bearing.

Comparison with Other Fruits.

Generally speaking, Apples and Pears, varieties of which show the greatest tendency to alternate cropping, differentiate their buds early in the season (December), when the crop on the trees is growing most rapidly. On the other hand, most Plums and Peaches, which show only a slight tendency to bear biennially, differentiate their buds much later at a time when the crop on the tree is matured or has been harvested.

It has been pointed out that whereas the Navel shows only a slight inclination to bear biennially, the feature is pronounced in the Valencia.

Differentiation of the blossom buds occurs at the same time in both varieties, but in the case of the Navel the fruit is mature and being harvested whilst the Valencia is maturing its crop, which is not ripe nor harvested until at least six weeks after the blossom buds for the next season have formed.

The fact that the maturing crop of the Valencia is drawing heavily on the nutrient supply of the tree at the time of blossom bud formation, whereas the Navel crop is not, may explain why the Valencia shows the greater tendency to biennial bearing. The effect of the crop on the development of blossom buds is being tested this season by removing portion of the crop on different trees at intervals from December until harvest.

Portion of the grove of Valencias on Mr. H. J. Braund's farm No. 686, Block C., Griffith, is being used for these investigations, and Nitrogen Fertilisers Proprietary Ltd. has kindly donated the fertiliser required for the manurial trial. During the coming season, which is expected to be one of poor blossom bud formation, the following treatments will be applied and each treatment replicated six times:—

1. Manuring at the end of July or about three weeks before bud burst at rate of 2 lb. of ammonium sulphate per tree.

2. Manuring about mid-October (during flowering) at rate of 2 lb. of ammonium sulphate per tree.

3. Manuring about beginning of December or as far as possible three weeks before the December drop at rate of 2 lb. of ammonium sulphate per tree.

4. A combination of July and October manuring as above.

5. Manuring in July, October and December at rate of 2 lb. of ammonium sulphate per tree and summer pruning at beginning of December, cutting out water shoots.

6. A control manuring at rate of 6 lb. of ammonium sulphate per tree applied in three dressings during September, November and February.

The effect of the July manuring on blossom bud formation will be determined, if possible, by counting and estimating the number of blossoms produced on trees manured at that time and comparing with the control (fertilised in September). The effect of the October and December manuring on setting will, if possible, be similarly determined, and the yield and number of fruits maturing will also be recorded.

Yield per tree
in bushels
2.0

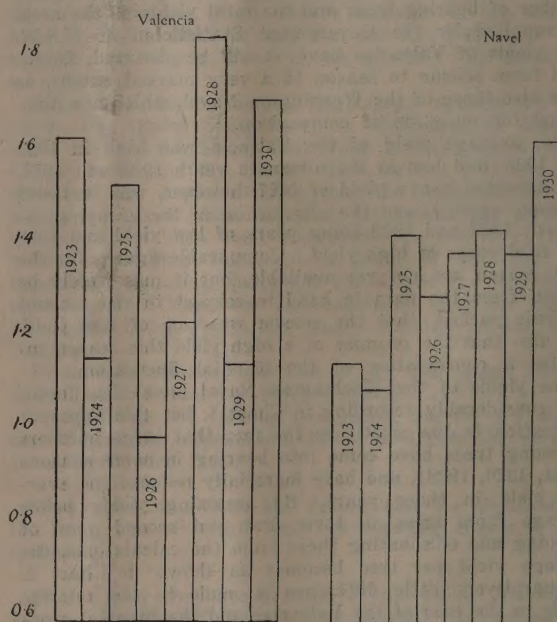


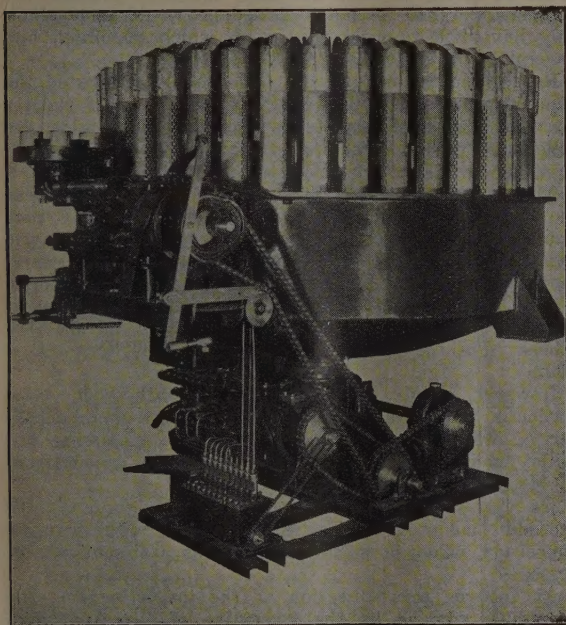
Chart No. 2.—Yield per tree in bushels for 8 years—eliminating one and two year old trees (see letterpress).

Cobram.—There was a good attendance at the annual meeting of the Cobram Fruit Packing Company. The report stated that the packing charge amounted to 6.05d. a case. This compared favorably with the cost of packing at many other sheds; 42,258 cases were packed through the shed, of which 3,259 cases were packed by non-shareholders. The washing and drying plant, which cost £1,020, was paid off during the year. Wages and commission amounted in 1930 to £1,134, in 1931 to £1,116, and in 1932 to £984.

NEW CANNING MACHINERY.

Details are just to hand from England of the L. C. Automatic pressure retort—a new type of retort entirely automatic in action, as well as in feed and delivery. This machine, which was designed after exhaustive tests had been made, automatically feeds cans through a valve system into the steam pressure container. Here, by the circulation of a number of vertical rotary conveyors, each can is cooked separately, and rapidly cooled by a special process. By scientifically playing saturated air upon the cans while passing through a metal tunnel, the contents can be cooled down to 90 deg. in nine minutes.

Any period of cooking, from ten to fifty minutes, is possible by a variable gear control, which can be adjusted instantly while the machine is running.



New Canning Machinery.

A minimum of space is needed for the machine, and a 40-minute cook, with 60 per minute feed, dimensions 13 ft. x 13 ft.; 3,600 cans can be effectively dealt with per hour. By a continuous process throughout, the same conveyor takes the can, cooled and dried, from the tunnel, and carries it dried to the store for stacking. The picture on this page shows one of these machines installed in the premises of the Wisbech Produce Cannery Ltd., one of the biggest of the new factories in England. The machinery is supplied by the L.C. Engineering Supplies Ltd., 4 Palmer-street, London, S.W.1, England.

Waikerie Growers Visit Mildura.—Dried-fruit growers from Waikerie, S. Aust., recently visited Mildura and spoke appreciatively of the methods of picking and drying. They suggested, however, that the pruning competitions in the Lower Murray areas of South Australia had improved the pruning methods, while citrus cultural methods were also better there than in the Mildura district.

CITRUS CROP IN QUEENSLAND.

Fruit is of Good Quality.

Only Dump and Canadian Cases Permitted in Marketing Locally.

THE CITRUS CROP IN QUEENSLAND this season is estimated by Mr. Geo. Williams, Director of Fruit Culture, at approximately 310,000 bushels. The chief varieties of Oranges are the Joppa, Valencia, Navel, and Siletta; of Mandarins, the Glen Retreat, Emperor, and Scarlet.

Although the weather conditions were rather unfavorable owing to lack of sufficient moisture during the early stages of growth, the citrus crop has developed fairly well and the quality of the fruit is up to the average.

Unfortunately, since the advent of artificial coloring by ethylene gas, reasonable discrimination has not always been shown in determining the stage of growth of the fruit at which the sugar content would be sufficiently developed.

Market prices have been comparatively low, and a wide discrimination is shown in these by fruit from the Gayndah district, which has been consistently advocated for the production of Oranges, Mandarins, and Lemons. The lowest priced Gayndah fruit are usually equal to the highest from other parts of the State, whilst the top prices are, particularly for Navels and Lisbon Lemons, often double those received for any other district's production.

The fruit case question as applied to citrus has been rather vexed for the last thirty-five years, but finality has now been reached, and for local sales the Australian and Canadian dump cases only will in future be allowed.

All fruit marketed has been particularly clean and free from fungoid and insect pests; the fruit fly also has been conspicuous by its absence this season.

QUEENSLAND.

Summit Packing House.—In a letter from Mr. Hedley Dempster, of Thulimbah, Queensland, he pointed out a printer's error which occurred in describing the costs of the direction and equipment of the Summit Packing House published last year. Actually, the costs were:—Tender price, £404/13/6; equipment, "Lightning" Company, £181/17/10; engine, £32; benches, stands, etc., approximately £80. Added to this there was a quantity of small equipment and the freight on the grader, etc., from Melbourne, total costs being approximately £750.

SELLING FRUIT BY NUMBER.

At the annual meeting of the Melbourne and Metropolitan Retail Fruiterers' Association, a resolution was unanimously carried favouring the selling of large fruit, such as Apples, Pears, Quinces, etc., by number instead of by weight. The Agricultural Department has been advised to this effect.

Victorian Dried Fruit Pack.—The estimated pack for dried vine fruits in Victoria is 36,234 tons, in addition, 2,896 tons from settlements in N.S.W., just over the Murray were being packed in Victorian sheds.

THE OTTAWA CONFERENCE.

Bon Voyage to Mr. J. B. Mills.

ORGANISED by a Committee representing fruitgrowing, exporting and shipping interests, a farewell luncheon was tended to Mr. J. B. Mills, President of the Australian Apple and Pear Export Council, prior to his departure for the Ottawa Conference. The dinner was held at the C.T.A. on June 14. Mr. W. A. Webb (Doncaster) presided. Apologies were received from the Minister for Commerce, Mr. Hawker, Professor Wadham, Dr. Rivett, and others.

Mr. W. H. Swanton, Chairman of the O.S.R.A., proposed the toast "Our Guest." He said the industry was to be congratulated on having a man of Mr. Mills' capacity and standing to represent their interests at Ottawa. No better representative could have been selected. The Ottawa Conference was full of possibilities of great good.

Councillor J. J. Tully (Doncaster) said Mr. Mills had earned the goodwill of the growers, and he looked for substantial benefits to follow the Conference.

Mr. C. J. Parnham spoke as a lifelong friend of Mr. Mills, who, he said, was carrying the good wishes of the vast majority of fruitgrowers and shippers of Australia. Mr. Mills was an able negotiator, as proved by his success in representing the producers and shippers at freight conferences. His knowledge of the industry and far-sightedness had saved the producers hundreds of thousands of pounds. He was tremendously impressed with the value of the Ottawa Conference. Nothing but good could come from a meeting of statesmen from all parts of the Empire.

Mr. M. M. Brody (John Sanderson & Co.) said the fruit industry should be proud of the fact that a man of Mr. Mills' ability had been prevailed upon to go to Ottawa. He looked forward to the betterment of not only mutual trading and shipping conditions, but for increased international trading. The world was producing an abundance of goods and food, yet there was a lot of suffering in the world, which better international understandings would change.

Mr. Webb added his personal appreciation of Mr. Mills. He was fully confident he was the right man to go to this important Conference.

On rising to respond, Mr. Mills was received with enthusiasm. He said that by a mutual policy agreed upon by Empire fruit producers, all sections would benefit. In fact, Australia could develop her Apple and Pear export trade by absorbing settlers from Britain's surplus population. Already the fruit industry had grown to considerable proportions, and the export trade was of great value to Australia. He believed that the Ottawa Conference would benefit not only the British Empire, but would form a centre of prosperity from which the whole world would benefit.

At the instance of Mr. F. Cave, a hearty vote of thanks was tendered to the Chairman.

Meetings of fruitgrowers held at Harcourt and Tyabb were addressed by Mr. Mills, much helpful information being imparted. Growers expressed confidence in their delegate.

DELEGATE FOR OTTAWA.

(The Editor, "The Fruit World of Australasia.")

Sir,—No doubt your readers have noticed the criticisms in the press regarding Mr. Mills' departure for Ottawa and also noticed that Mr. Colombie has resigned from the Victorian Fruit Marketing Association. We enclose

herewith copy of a letter which we sent to the Melbourne "Age," and would ask you to publish it.

Yours, etc.,

CHAS. J. PARNHAM.

The Letter, Reduced, is as Follows:

Mr. Colombie is of course entitled to his personal opinion, which all will respect, but he is out of step with the majority, both in the Victorian Fruit Marketing Association and the Australian Apple and Pear Export Council.

Mr. Colombie was the shippers' Vice-president of the V.F.M.A., and properly speaking his resignation should first have come before that group before coming before the general Association, as both shippers and growers each appoint their own Vice-President. However, on two occasions recently Mr. Colombie declined to meet the shippers and had he not resigned he would unquestionably have had to meet the group which appointed him to explain his attitude.

Both shippers and growers have solidly supported the nomination of Mr. Mills, and voted in favor of the release of the necessary funds from the inspection fee collected by the Commerce Department—not the "advertising levy," as wrongly stated by Mr. Colombie.

The organisation which made the appointment was the Executive of the Australian Apple and Pear Export Council. At the meeting in May, when Mr. Mills was appointed, every State except Queensland was represented personally or by proxy, and the resolution appointing Mr. Mills was carried without dissent. Sixteen out of eighteen effective votes were in favor. Two did not vote (these were the proxy representatives of South Australia).

However, on Mr. Mills visiting the South Aust. Association a few days later a resolution was unanimously carried withdrawing their objections and endorsing Mr. Mills' nomination. This action made the appointment of Mr. Mills unanimous.

As the Victorian Association strongly supports the procedure adopted, and as S. Aust. had withdrawn its opposition, whom does Mr. Colombie, as a dissident, represent?

As regards the utilisation of the inspection fee, the procedure adopted by the Executive of the Australian Apple and Pear Export Council is exactly in line with that adopted by other exporting industries which receive funds in this way. Some of these industries raise not only their advertising funds, but also their general administration expenses by means of these export levies.

At the recent farewell luncheon the Chairman of the O.S.R.A. (Mr. Swanton) congratulated the industry on having such an able representative in Mr. Mills to go to Ottawa. This was a particularly graceful tribute, seeing that in the 1931 season, Mr. Mills, by his dogged persistence at the conferences in Sydney, had been mainly instrumental in saving the growers £116,000 in freight by pegging the exchange at 3 per cent.

Mr. Mills left Australia with the confidence and goodwill of all except a tiny minority, and we feel sure that this enterprise will bind the industry together in a new and effective manner in the development of a very important Australian primary industry.

There are many who think that Mr. Colombie, after having strongly expressed his views, should have bowed to the wishes of the majority, and carried on with his useful work. There is such a thing as "playing cricket."

Yours faithfully,

(Signed) CHAS. J. PARNHAM.

Melbourne, 28/6/32.

New South Wales.

NEW SOUTH WALES FRUITGROWERS' FEDERATION.

THE ANNUAL CONFERENCE of the Fruitgrowers' Federation of N.S.W., was held at Sydney from June 22 to 24, 1932, the President (General Heane) occupying the chair.

In opening the Conference, the Minister for Agriculture (Mr. Hugh Main) said that only by means of the efforts of the primary producers would Australia's financial position be restored. A Departmental Officer would be sent to Canada to inquire into the transport and marketing of citrus fruit. It was also hoped to send an entomologist abroad later to study fruit parasites.

The President urged the repeal of the iniquitous Transport Act. He hoped that the efforts to reduce the high cost of sugar would be successful. Efforts were being made to put the fruit barrow business on a better footing. It was decided to ask the Department of Agriculture to convene a conference of all interested in the operation of fruit barrows, with a view to inaugurating a scheme under which city fruit barrows could operate.

The Secretary's report, detailing the activities for the year was read and adopted.

Agent's Commission.—Mr. P. Robinson, of Glenorie, urged the abolition of the flat rate of 6d. a case, and the reimposition of a straight out commission of 7½ per cent. After lengthy debate, it was decided to refer the matter to the Board to review the rates of commission.

A proposal that all cases be sold with the fruit was rejected, it being held that this would prove a big handicap to growers in the metropolitan area.

Conference adopted the resolution favoring a proposal to control interstate freight rates and to introduce the zone system of charges as at present operating in the United States. Mr. Jackes, of Armidale, illustrated the advantages of the zoning system.

The Board was commended for taking action to prevent the marketing of fruit in bags, and further recommending that such containers be allowed only for the sending of fruit to factories.

Grading Regulations.—Conference again endorsed the proposal that the names of the grades for export Apples be altered to: extra fancy, fancy, and C grade, instead of the terms, "special," "standard" and "plain," as at present in use.

A resolution was carried in favor of the Co-operation Act being amended to exempt all fruitgrowers' rural co-operative societies from Federal Income Tax.

Conference adopted a resolution favoring the compulsory registration of all orchards, irrespective of area, provided that those now exempt from the payment of registration fee be not required to renew their registration each year.

A resolution was carried in favor of an inquiry with regard to the high price of potash, further, that the Government be requested to remove the duty.

Conference rejected by 35 votes to 21 a resolution moved by Mr. P. Best (metropolitan) that no man in the employ of fruit agents or functioning as a fruit agent, be appointed a member of the Board.

Conference discussed internal cork in Apples, also thrips, and it was decided to seek the assistance of the Council for Scientific and Industrial Research. The Director of Fruit Culture, Mr. C. G. Savage, stated that

internal cork and bitter pit were related to moisture conditions. Around Kentucky and Glen Innes, the trouble was probably associated with shallow soil and fluctuations in soil moisture.

PARASITES FOR FRUIT PESTS.

The N.S.W. Government Entomologist, Mr. W. B. Gurney, spoke in an optimistic strain at the annual conference of the Fruitgrowers' Federation, regarding the possibility of the successful introduction of parasites for fruit fly and white wax scale. Investigations had been made with regard to parasites for the white wax scale in India, Africa and China. As soon as possible the parasites would be brought to Australia. The Department was hopeful of having located the parasite for the destruction of fruit fly in India and Africa.

These parasites should arrive during the next three or four months, and although it was impossible to state that these would be a success against the fruit fly, the experiments were worth trying.

With regard to the identification of the Queensland fruit fly, Mr. Gurney stated that 68 varieties of fly had been caught in traps in Wahroonga orchards. On examination it was found that 50 per cent. of these were not the Queensland fruit fly.

The Bathurst District.

Pruning and Spraying Notes.

Success With Granny Smith Apples.

THE SEASON concluded was one of the lightest for many years, and the causes attributing, an infestation of thrips, non-viability of pollen, and unsuitable weather conditions during blossoming. The prospects for next season, are for a heavy crop of fruit, all trees having made plenty of growth, and are showing a bounteous supply of healthy fruit buds, this is the usual result following a season of leisure as far as the trees are concerned (but not the fruitgrower), and growers are pruning hard now, and barring accidents, probably, "thinning" out, after the set and "drop" has taken place.

Consequent upon the aphelinus mali, partly falling down on the job this year, a few growers are "spot" spraying their orchards this winter with miscible red oils, spraying only the badly infested trees, scattered through the blocks. In this district the aphelinus mali is always slow starting, but due to the cool weather experienced last spring and the continual spraying and destroying of the parasites, in an effort to control the thrips, the aphelinus mali did not get a proper move on, until quite late in the season, in the meantime the woolly aphis taking advantage of the lull, went straight ahead, and "made hay (aphides) whilst the sun shone," and to such an extent that the parasite was unable to catch up.

Codlin Moth Control.

The growers in the Bathurst district, although realising that spraying and bandaging are the main means of combating and holding the codlin moth in check, do not

rely solely on these two methods; during the winter, packing sheds and orchards are given a "clean up"; a systematic scraping is given the trees, and all larvae found in cracks, under loose bark between limbs, around the benches in the packing shed, on the grader, walls, in cases, etc., destroyed. The progressive Bathurst growers, realising the value of lessening the winter carry-over of the larvae, are fighting the codlin moth from every known angle, and some growers have "gone over" and puttied up with whitening and linseed oil any cracks, depressions, etc., on the trees likely to harbor the hardy and wily codlin moth grubs.

Seasonable Spraying.

Peach growers, following the pruning, and whilst the trees are dormant, are spraying with lime sulphur, winter strength (1 in 7) for the Peach leaf curl, tar distillate sprays for green Peach aphid, red oils for black aphid, and some growers the combination oil and lime sulphur sprays now on the market.

The spring spraying programme on the Apples will consist of, where powdery mildew is troublesome, lime sulphur at spurburst or pinking (or both), applying the home-made mixture at a strength of about 1 to 14 at both periods, and possibly again, combined with the arsenate of lead at the calyx stage, at the usual summer strength.

If, during the summer it is necessary to apply further lime sulphur sprays, they will be included in codlin moth cover sprays, and in all cases calcium caseinate spreader will be added to the mixture.

The first cover moth spray will have nicotine sulphate included with the arsenate of lead, for the control of the Apple leaf jassid, which have usually hatched out by this time, from eggs laid during the previous autumn in the tissues of the bark.

Due primarily to the granitic nature of the soil, and consequent continual disintegration of the soil grains, negligible results have been obtained from the application of artificial fertilisers, but considerable benefit has been derived from the use of lime in the improvement of the soil and the many growers who have applied such, report increased vigor, health and better fruit.

The little planting that is being carried out in this district, consists of Apples mostly, and practically only one variety, Granny Smith. Bathurst-grown G.S. Apples are famed in N.S.W. for their quality and are considered second to none.

NEW SOUTH WALES.

Farm Produce Agents Act Amended.

THE FARM PRODUCE AGENTS AMENDMENT ACT became law in N.S.W. on April 15. Under its provisions, merchants are now prohibited from purchasing farm produce from the producer unless the purchase price has been agreed to by the producer. Where merchants purchase fruit, books must be kept showing the purchase price and the sale price of the produce. Before an agent can become licensed he must furnish a bond and should there be default the Department can recover from the insurance company. The amount of the bond has been increased, being now £1,000 for an individual, and £2,000 for a firm or corporation. Where country agents sell small quantities by auction the bond has been fixed at £300. Co-operative societies which sell farm produce to other growers as well as their own members are now required to register. Agents must furnish account sales together with payment, within 14 days

after sale. The agent is entitled to deduct his out-of-pocket expenses plus commission at the rate of 7½ per cent., or if he chooses in the case of fruit, 2d. per quarter bushel case, 4d. per half bushel, and 6d. per bushel case.

Certificate Necessary for Destruction.

Another amendment provides that agents must not destroy farm produce unless with written authority of a health officer, municipal officer, or fruit inspector. Where fruit is shown to have been destroyed the certificate should be forwarded to the grower. Other sections of the Act provided for heavy penalty for rendering false accounts, and growers should advise the registrar should they be dissatisfied with the dealings of any agent.

ROOT WEEVIL DAMAGES CITRUS TREES.

Control Measures.

CITRUS TREES in certain districts are attacked by a beetle generally known as the "Apple root weevil."

The insect feeds on the roots and crawls up the trunks, causing minor damage to the foliage. The N.S.W. Department of Agriculture advises the banding of the trees with adhesive material and destroying the beetles at weekly intervals. The beetle commences to emerge from the soil about mid-June. Where several branches are near the ground level, each should be banded separately. The band should be two to three inches in width, and the material should be applied as thickly as possible. In dusty, windy weather, keep the bandages fresh by rubbing, and removing leaves which have stuck. Prune lower branches to keep them off the ground. All growers should test a few trees to ascertain whether the beetles are present. The pest is a serious one, and is capable of destroying an orchard.

The beetle itself is about seven-eighths of an inch in length, wingless, buff colored, of the weevil type, head being drawn out into a long snout. Where trees become thin and sickly-looking, examine for beetle carefully, particularly on river flats subject to flooding. An examination of the roots will give a definite indication whether the beetles are present, but this may necessitate digging 3 or 4 feet under the crown of the tree, as very often the surface roots are not damaged. Any grower who is doubtful whether the beetle is present in his orchard is advised to communicate with the local fruit inspector.

NEW SOUTH WALES.

Batlow Orchard Competition.

The third annual orchard competition of the Batlow Agricultural Bureau was judged by Mr. Broadfoot, senior fruit inspector of the Department of Agriculture. Following are the awards:—Annual competition.—Estate of the late Mr. W. Buckingham, 1; Mr. H. V. Smith, 2; Mr. C. Buchele, 3. Points were given for production an acre, according to age, quality, health, and vigor of trees, provision for next year's crop varieties, soil management, pruning, and pollination.

Points allotted to the competitors were:—H. V. Smith, 77; E. M. Herring, 69; P. E. Thompson, 70; C. Buchele, 76½; T. E. Dodds, 60½; T. R. Quarmby, 62½; C. C. Barberie, 66; N. R. Herring, 75; O. J. Butz, 63; R. H. Quarmby, 67; G. Wilkinson, 64½; J. A. Bartell, 46; W. Buckingham, 79½; S. E. Velvin, 65.

For the aggregate three years crop, of a possible 300 points, Mr. H. V. Smith obtained 235 points.

The Victorian Fruit Marketing Association.

THE monthly meeting of the Executive Committee of the Victorian Fruit Marketing Association was held at the Commercial Travellers' Association, Melbourne, on June 24. Mr. J. W. Bailey presided. There were also present, Messrs. Carne, Hutchinson, Harrison, Mellor, Ford, Eagle, Webb, Lawford, Jost, Brown, Ward (Superintendent of Horticulture), Meeking (Department of Agriculture), and the Secretary. Messrs. P. V. Kerr, Tyabb, and Hamilton, Red Hill, were also in attendance.

Apologies were received from Messrs. Cave and Parnham.

The minutes of the previous meeting were taken as read and confirmed on the motion of Messrs. Harrison and Ford, subject to the following two additions—“(1) At the executive meeting on June 8, Mr. Colombie and some others voted against the exclusion of the press.

(2) In order to overcome the objections raised in connection with sending a delegate to Ottawa, Mr. Colombie suggested that the funds should be raised voluntarily, and he offered up to £50 for the purpose with the suggestion that a like sum be subscribed voluntarily in Victoria.”

Resignation of Mr. Colombie.—Mr. H. G. Colombie wrote tendering his resignation: he took exception (1) to the resolution excluding the press, and (2) to the resolution agreeing to appropriate for other than advertising purposes a portion of the levy of $\frac{1}{8}$ ths of a penny on Apples and Pears exported. His legal advisors stated that it was improper for him as a member of the Australian Apple and Pear Export Council, to agree to the appropriations. He tendered his resignation, which entailed the resignation from the Australian Apple and Pear Export Council.

A committee was appointed to wait on Mr. Colombie, requesting him to reconsider his resignation.

Agricultural Lime.—In response to a letter from the V.F.M.A., the Director of Agriculture (Mr. Crowe), wrote stating that a Bill for the purpose of bringing Agricultural lime under the Fertilisers Act was in course of preparation towards the end of the last Parliamentary session, and the matter would be submitted at an early date for the consideration of the present Government.

Motor and Road Transport.—The Secretary reported having attended, in company with Mr. Webb, a conference called by the Melbourne Chamber of Commerce. The following resolution had been carried:

1. “That in view of the very great importance of transport to the whole community, and the vital necessity that it should be provided with the most efficient-economic transport of goods and passengers
 - (a) The Government should be urged to appoint a special Committee equally representative of all interests with an independent chairman and with power to take evidence on oath, to fully investigate the whole question of transport.
 - (b) That pending the result of such enquiry, the Government should not introduce any legislation for the control of transport.

2. This Conference is further of the opinion that the body administering the Victorian Railways should be free from political interference.”

It was resolved that the resolution should be conveyed to the Premier and that a copy be also forwarded to the Prime Minister.”

Mr. Webb stated that the interests of both road and rail transport were represented at the meeting. He was

in touch with the Graziers' Association regarding a suitable speaker at the proposed deputation. Report received.

Field Day at Somerville.—It was reported that difficulties had arisen in arranging an orchard for the demonstration. Decided that the matter be left with Messrs. Brown and Hutchinson.

Field Day at Pakenham.—Mr. Carne stated that a Field Day was desired at Pakenham—Thursday, July 21, at Mr. Ahern's orchard. Left with Mr. Carne and Secretary to complete the details.

Sales Tax.—Mr. F. R. Mellor wrote stating that the Federal Taxation Commissioner had advised that wrapping paper, wood wool, and case labels were not subject to sales tax when sold by registered wholesaler (a) to a registered person required to quote a certificate; (b) direct to a primary producer for marketing fruit. Further, in regard to goods of the above nature sold direct to primary producers if was necessary to obtain a certificate that they were exclusively for marketing fruit. Such goods, when sold to retailers or registered persons not permitted to quote a certificate were subject to sales tax irrespective of the fact that such persons were in a position to certify that the goods were to be sold to primary producers who would use them to market fruit.

Continuing, Mr. Mellor stated that shooks, both locally cut and imported, were subject to the same conditions. The position was very serious. Exemption from sales tax would be unobtainable under this interpretation. Any tax paid would have to be passed on to the growers. The taxation commissioner insisted that when packing materials were sold direct to growers the latter must give a written certificate that they are to be used exclusively for marketing fruit—even for small quantities such as half a dozen reams of wrapping paper or a few pounds of case nails. This would enormously increase the cost of handling such goods, including more time, printing, stationery and postages. The Secretary read a letter from Messrs. Gordon & Gotch, paper merchants, Melbourne, in similar terms.

Mr. Kerr, Tyabb, said that co-operative companies were hoping to overcome the difficulty by giving certificates on behalf of growers.

It was pointed out, however, that the new ruling now made this course impossible.

Decided on the motion of Messrs. Hutchinson and Mellor, that the Australian Apple and Pear Export Council be advised so that his matter could be referred to each of the other States with a view to joining in a protest to the Government and their Parliamentary representatives.

Case Timber Specifications.—Mr. Ward asked what progress had been made regarding uniform specifications for hardwood cases. The Chairman replied that difficulty had been experienced in arriving at any finality because of the variations with unseasoned timber, which many growers still desired.

Softwood Timber.—On the motion of Messrs. Eagle and Ford, it was decided to cable to Mr. Mills asking him to enquire, while in Canada, as to the prices for Canadian softwood shooks, and the possibility of securing same at lower prices than at present charged.

Melbourne Centenary.—The idea of a comprehensive fruit show—Australian and international—on the occasion of the Melbourne Centenary in 1935, was discussed. It was decided on the motion of Messrs. Mellor and Jost to take no further action.

The meeting then closed.

Fruit Markets in the Indian Empire.

Continued from January "Fruit World."

IT HAS BEEN said frequently that India is not a country, it is a continent. Its vast area, enormous population and many races of people, create an insurmountable difficulty for anyone who would briefly describe this part of the British Empire.

India has a population around 319,000,000; Ceylon, 5,124,992. Together, they constitute one-fifth of the human race. India has an area of 1,805,000 square miles, and Ceylon 25,000. India has an area about one-half of U.S.A., and a population three times as large, or, compared with Australia, again one-half of the area, but over 50 times the population. India has 177 persons to the square mile.

India is an agricultural country, about 90 per cent. of the people live outside the towns and cities; 73 per cent. are directly engaged in agriculture. Of 225,000,000 acres in India sown in crop, 27,740,000 are under irrigation. The European population comprises 174,057 persons, with 113,090 Eurasians, known here as Anglo-Indians. There are 222 languages, of which 13 are important.

The average farm in India is about two acres, and though there is reason to believe that the standard of living of the Indian agricultural masses has improved, there is still a large amount of dangerous poverty, that is of such a kind that those subject to it live on the very margin of subsistence. The economic level of India is, however, rising. Saving bank deposits and membership in co-operative societies are continually increasing.

Though subject to variation of climate, India must for marketing conditions be treated as a tropical country, in which imported fruits are subject to spoilage when exposed to the air. In the main, India is a vegetarian country, the native diet being based on rice, except in the northern sections, where wheat is used. People of all classes are fond of fresh fruit, but it is regarded as a luxury, purchaseable only by those of larger means, although during most seasons of the year fresh fruits sell at low prices in the market.

Fresh Fruit.—The amount of American fresh fruit imported into India is so small as to be practically negligible. Native fresh fruit is abundant, and cheap throughout the entire year. Because of the varied climate, fruits of the temperate sub-tropical and tropical zones are grown. On the foothills of the Himalayas orchards of Plums, Apples, Peaches and Grapes have been planted. The vale of Kashmere has for hundreds of years been famous for its fruits. Representative prices of native fruits in the markets of Calcutta and Bombay are:—Pineapples 3d. to 6d. each, Bananas 5d. per doz., Figs 5d. to 8d. a doz., Oranges 5d. per lb., these fruits are in season all the year; Apples 3d. each, Apricots 4½d. per lb., Peaches ½d. each; Grapes 2d. to 3d. per lb.

Imported fruits are largely from countries under the British flag; an exception to this, however, is the fruit from Japan, which, because of its low price, has found a place in the market.

In January, 1930, Apples from Japan sold in Calcutta, wholesale, at 4½d. a lb.; smaller Japanese Apples sold at 3½d. a lb., and retailed at 3d. each; Australian Apples sold at 4½d. per lb. in Calcutta. In Madras they were 5d. and 6d. a lb., retailing at 10d. per lb. Beside them were Apples from South Africa selling at the same prices.

Oranges from Jaffa, in Palestine, ranged in price, wholesale, from 1/6 to 2/- a dozen; Californian Oranges, 120 to the box, sold at 32/-, retailing at 3/- a dozen.

Grapes from Australia brought 5½d. per lb. Competing with them were Grapes from Spain, selling at 11d. per lb.

Lemons from Palestine and Italy sold at 1½d. each in Bombay and 1d. in Calcutta. Pears from South Africa, wholesaled at 3½d. each, at retail 6d. to 8d. each.

No statistics are available as to the amount of fresh fruit imported, as they are included with vegetables in official figures. It is evident, however, that the amounts imported are small.

Fresh fruits from America are generally imported into India on a c.i.f. basis; from other countries they are usually shipped on consignment.

There is an import duty on fresh fruit of 15 per cent.

There is no difficulty in educating the Indian to eat imported fruit. The difficulty is one of price. The expansion of the market is limited by (1) the low buying power of the very large majority of the population; (2) by the small expenditure that even rich natives are willing to make for foodstuffs; (3) by the competition of native fruits; and (4) the difficulty of adequate distribution.

Canned Fruit.—With the exception of a few wealthy Indians canned fruits are practically unknown to the native population.

Europeans in India, of course, consume canned fruit in reasonable quantities. The total value of canned and bottled fruits imported in 1928 was £90,000, of which £28,000 was for fruit from U.S.A. Peaches represent one half of the sales, followed by Pears, Cherries and Apricots, in that order.

To successfully market a large volume of canned fruit in India: (1) Prices must be made lower; (2) small sizes such as 8 oz. must be placed on sale; and (3) an extensive campaign of trade promotion conducted.

Dried Fruit.—The Indian market consumes large quantities of dried fruit, chiefly of Asiatic origin. Dates from Arabia, Apricots, Currants, Figs and Raisins from Afghanistan; Apricots from Punjab, are all prominently displayed in the native bazaars.

Australia sends dried fruits for the European trade. Currants sell at 9d. a lb.; Raisins, 5½d. a lb. in Calcutta to 9d. in Bombay.

American dried fruits, usually in tins, are on sale in all large cities. They are sold principally to Europeans as the prices are much higher than those of Asiatic dried fruit.

Prunes present the best field for intensive effort, they would fill a need in India, which is more medicinal than nutritional, they must be packed in small containers of about a dozen fruit.

Trade promotion even of a large scale is not certain of success.

—Summary of an American Bulletin, by J. H. Lang, Harcourt, Vic.

MILDURA DISTRICT CITRUS ASSOCIATION.

AT the recent annual meeting of the Mildura District Citrus Association, the organiser, Mr. C. H. Cameron advocated closer co-operation with South Australian growers, as South Australia had appointed a representative to visit New Zealand to supervise sales. Last season's export to U.K., N.Z., and China were not satisfactory. Legislation was advocated to provide compensation for export and for advertising to increase consumption. By pool packing large and small sizes could be eliminated, thus keeping the market steady. To develop quality in citrus the Mildura Horticultural

Society was arranging for a points system of judging over a five-year period, to enable growers to check the results of cultural methods. Last year's total was 417,000 cases: this season the estimate was for 371,000 cases. The Mildura exchange controlled 65 per cent. of the pack.

Improved Position for Lemons.

Continuing, Mr. Cameron stated that an improvement had taken place in the Lemon situation. The Mildura Co-operative Co. last season processed Lemons, paying growers £3 a ton: the trade was developing and the company was now offering £7 a ton.

Visit to South Australia Advocated.

In conclusion, it was recommended that growers from Mildura should visit Waikerie to discuss the supplying of the New Zealand market; also a citrus exchange at Renmark, on the same lines as at Mildura, would assist in lifting prices.

REPORTS FROM LONDON state that severe competition from American Apples in mid-June, was the cause of low prices for Australian fruit.

Later in June, the advent of the Strawberry crop assisted to depress prices for Apples.

PASSION FRUIT IN NEW ZEALAND.

Big Company Being Formed.

A company, Passion Fruit Plantations Ltd., is being floated in New Zealand with a nominal capital of £50,000 to develop the Passion Fruit industry: 25,000 shares are now offered at £1 each.

The company advertises that it has acquired 1,360 acres of suitable land for Passion Fruit culture in the Auckland province. It is further stated that the world-wide demand for Passion Fruit juice has grown to unique dimensions, and that the problems of juice extraction and transportation have been definitely solved. A large factory has already been erected at Kerikeri. Profits are expected next season and onwards. The registered office is at Argus House, High-street, Auckland.

NEW ZEALAND NOTES.

Avocados in N.Z.—While there are a few good bearing trees in the Dominion, a great many—seedlings—are not doing satisfactorily. Dr. J. E. Coit states the trouble is asphyxiation—suffocation during wet periods, due to ineffective drainage.

Fruit Tree Planting.—Quite a lot of Apple, Pear, and citrus trees are being planted this season: the areas are quite considerable.

Macadamia Nut.—Reports from Australia indicate the popularity of this dessert nut—one of the finest in the world. Grafted trees of the thin-shelled variety are reported to be much the best to plant, as these come into bearing at about 5 years, while seedlings take 20 years to fruit. This nut does well on suitable soil near Auckland and northward, and deserves to be largely planted.

SOFTWOOD CASES for packing Australian fruit are advocated by some leading Hamburg brokers; for one reason, the tare on hardwood cases is greater.

A VISIT TO QUEENSLAND.

After visiting the Apple-growing district of Stanthorpe, Queensland, Mr. J. L. Small, manager of the insecticide department of Wm. Cooper & Nephews, Sydney, advises that the Apple growers have had a very fair season. "The country reminds me of Harcourt," writes Mr. Small, "and extensive planting of Apples is still being carried on."

AMERICAN FRUIT TREES FOR RUSSIA.

American fruit varieties are wanted in Soviet Russia, according to a letter sent by the Agricultural Department of the Soviet Government to the Southern California Nurserymen's Association. The Association is recommending to Russia their members who are capable of supplying the trees.



Placard on a London Bus.

This is part of the Fruit Advertising Campaign now being Conducted in England.

Queensland.

THE factory control of citrus has been extended for a further twelve months from March 31.

After prolonged negotiations, arrangements have been finalised for the Queensland Railways to collect citrus levies: 4/- per ton, viz., 38 bushel cases to the ton at 1½d. per case. The collection will be made on all railings other than those consigned from Toowoomba, Townsville, Brunswick Street, Roma Street, Woolloongabba, and interstate consignments. The levy on southern consignments and deliveries to market other than by rail will be collected through agents. The levy on factory citrus is 5/- per ton, the additional 1/- will be collected by the C.O.D. office.

The Citrus Sectional Group Committee has glaring instances of underpayment by a certain Sydney agent, and a prosecution is expected at an early date. The manager reported that citrus levies for the nine months were £416, and the expenses £539, including committee fees, £68, and Sectional Group Committee, £129. Levies to the end of June totalled £340, making a total of £756 for the season. With a smaller crop this season, the revenue would be based on 120,000 cases, approximately £625. Allowing £100 for advertising, only £525 would be available for expenses which were estimated at £700. The manager said that every effort was being made to curtail expenses. It was decided to reduce the Committee to five, and not to have a citrus trophy for competition at the Royal National Exhibition this year.

The Banana Industry.—A meeting of the Banana Industry Protection Board met recently, Mr. G. Williams, Director of Fruit Culture, presiding. The Chief Inspector reported that 1,200 acres of unprofitable Bananas had been eradicated during the past twelve months in the Palmwoods, Eumundi, Beenleigh, Nerang, Gympie and Cooran areas, with more to follow. Prospects of the younger plantations were fairly good. The eradication of backyard Bananas in Brisbane was proceeding satisfactorily.

The Deciduous Sectional Group met at Stanthorpe recently. There were present, Messrs. M. Greener (Chairman), S. Barber, W. Clegg, D. G. T. Gow, H. L. Bullen, J. L. Luker, D. Pfrunder, J. V. Scully, and A. D. Philp (Secretary). It was decided that this meeting, after hearing Mr. Ranger's explanation in connection with the collapse of the Grape export business, is of the opinion that the C.O.D. did not give sufficient consideration to the matter prior to purchasing and equipping the shed, and that the C.O.D. erred in not advising the Deciduous Sectional Group Committee and the Grape Growers' Association of the risk involved. We consider it essential that the C.O.D. should give adequate consideration to D.S.G. business.

It was resolved that a conference of Grape growers

be held at Glen Aplin, on a date to meet the convenience of Mr. Ranger, preferably about the third week in July. Also, that a conference be held at Stanthorpe, with Mr. Ranger in attendance, to discuss future possibilities of export of Apples and Pears, immediately after the Grape Conference.

Local Producers' Association.

Resulting from a request from Poizeres Local Producers' Association, it was decided to instruct the C.O.D. to forward a statement detailing the operations of the fruit train along with the balance sheet. The C.O.D. are to be asked to go into the matter of the reduction of freight rates for the coming season to coincide with rates charged by the Queensland Fruit Society, viz., 3/6 per ton, plus Commissioner's rates and terminal charges. It was resolved "That the Manager of the C.O.D. be requested to furnish monthly reports of the C.O.D. operations to each member of this Committee in lieu of the report supplied by the representative on the C.O.D."

At Gympie very large areas of beans have been planted, some of which are now being marketed and retailing here at 3d. per lb.

Tomatoes.—As the Department of Agriculture is now pointing out to Tomato growers that the contents of cases must be marked: the following are the grade standards for Tomatoes marketed here:—Small, 2 inches; 2½ inch, 2½ inches, 2½ inches; large, 3 inches and over in diameter. The outer layers or shown surfaces shall be a true indication of the average grade and size of Tomatoes throughout the case. Small must not be less than 1½ inches in diameter.

VISITOR FROM BRISBANE.

Big Stocks of Tasmanian Apples.

Mr. Dugald Clark, of Messrs. Clark & Jesser, growers' agents, Brisbane, called at the "Fruit World" office after his visit to Tasmania. He noted the excellent quality of Tasmanian Apples this season, and was impressed by the fact that there remained about 1,500,000 bushels of Apples for shipment to the mainland. Allowing for 20,000 cases to go to Brisbane every fortnight, 50,000 per week to Sydney, 10,000 per week to Melbourne, nearly 20 weeks would be needed to dispose of the fruit, thus supplies would continue until December.

Mr. Clark says he could not notice any signs of "depression" in Tasmania.

* * * * *

At a recent special meeting of the Brisbane Fruit Merchants' Association, Mr. Clark was unanimously elected President, to fill the position held until recently by the late respected W. Robson.

Mr. A. E. Chave was elected to the Executive Committee of the Association.

Do not run any Financial Risk with your Fruit
but Consign it to

HEDLEY GEEVES LIMITED

Telegraphic Address:
"Apples, Brisbane."

(Hedley Geaves, Managing Director)

Registered Shipping No. 6.

FRUIT EXCHANGE

BRISBANE

SELECTED AGENTS FOR:

Victoria: Harcourt Fruitgrowers' Progress Assn. Ltd.
Harcourt Fruit Supply Co. Ltd.
Victorian Central Citrus Assn. Ltd.

Tasmania: State Fruit Advisory Board.
New South Wales: N.S.W. Central Citrus Assn. Ltd.
Bailow Packing House Co-op. Soc. Ltd.

Apple Varieties Raised in Tasmania.

(3) Lalla.

(By P. H. Thomas, Chief Horticulturist, Tasmanian Department of Agriculture.)

"LALLA" is the name chosen by the veteran Tasmanian nurseryman and orchardist, Mr. F. Walker, for the Apple which originated on his property of that name in the North-East Tasmania.

Some years ago a Delicious tree planted in the orchard developed, on one particular limb, a number of very much deeper colored fruits than are normally borne by this variety. The limb was kept under observation for a number of seasons, and its consistent bearing of the different Apples indicated that an interesting mutation, "bud sport," had occurred.

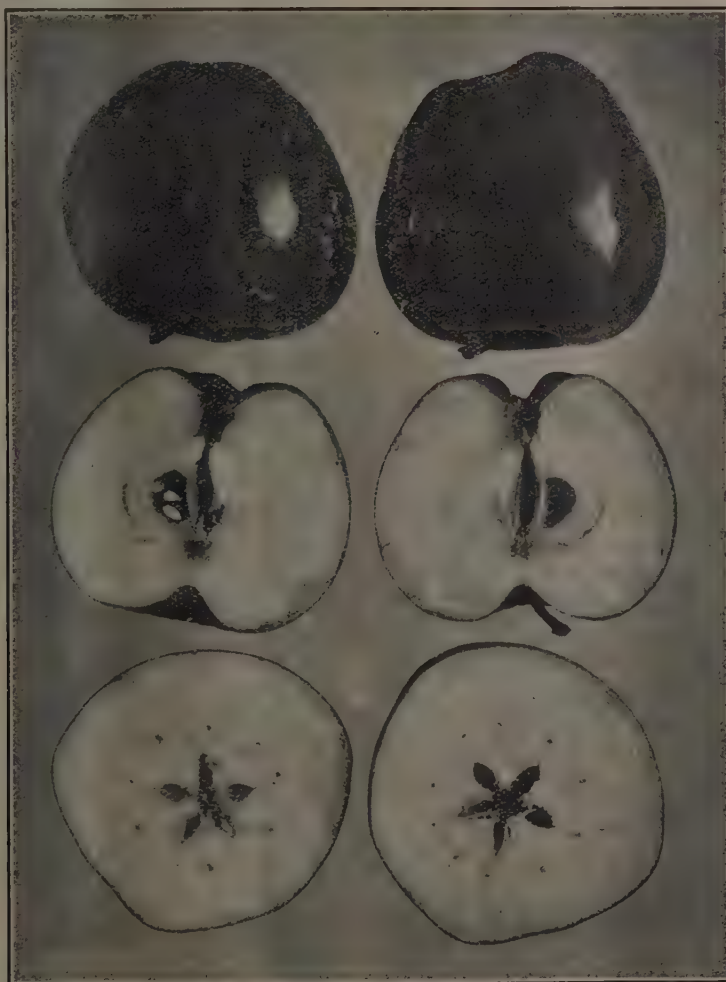
The limb was subsequently carefully developed and propagation effected, so enabling further tests to be carried out to ascertain whether the "sport" was fixed and could

be used in the ordinary nursery grafting and budding processes for tree-production.

At present at the "Lalla" orchard there is an area of sixteen-to-seventeen-year-old trees which have been propagated from the original "sport," and the variety has also been distributed throughout Australia.

Lalla is a very handsome Apple. The shape is similar to its parent, but the flesh texture is firmer, and the skin color, instead of being striped, is of an even deep carmine.

The tree retains all the vigorous characteristics of the Delicious, and although carrying a luxuriant deep foliage the fruits develop their even color whether borne on the shaded portions or on the outside branches. Lalla has



Lalla Apple.—Vertical and cross sections, showing internal structure.

—H. M. Nicholls, Photo.

proved to be a good shipping variety, and very favorable comments have been received on consignments forwarded to Australian and overseas markets. It is also suitable for cold-storage, and can be retained at suitable temperatures until the early spring months.

It is noteworthy that three other bud sports from the Delicious variety have come into prominence during recent years. Two of these have originated in New Zealand and America, and possess deep color similar to Lalla, whilst another, yellow in color, and known as the Golden Delicious, has also recently been brought before the public.

Pomological Description.

Variety:—Lalla:

Form.—Roundish conic; ribbed.

Size.—Medium to large.

Cavity.—Deep; broad; sometimes furrowed; flaring.

Stem.—Long; medium; thick.

Calyx.—Open; medium.

Lobes.—Acute; narrow; erect; divergent.

Basin.—Deep; wide, abrupt; prominently furrowed.

Skin.—Thick; tough; smooth; with pronounced bloom.

Color.—Yellow ground color, but almost the whole of the surface is covered with deep carmine.

Dots.—Few; conspicuous; grey.

Flesh.—Yellow, with slight greenish tinge; firm; crisp; juicy; aromatic.

Quality.—Best; highly flavored.

Core.—Medium; open; abaxile.

Carpels.—Round; clasping.

Calyx Tubes.—Wide; funnel-shaped.

Seed.—Medium; plump; short.

Season.—April-July; extended by cold storage to October.



Lalla Apple, showing method of pruning, fruiting, and general characteristics.

—P. H. Thomas, Photo.

—“Tasmanian Journal of Agriculture.”

WESTERN AUSTRALIA.

Success at Imperial Fruit Show.

CONGRATULATIONS have been extended to Mr. Geo. Simpson, of the Rokewood Orchard, Karragullen, W.A., on being awarded first prize for Granny Smith, Dougherty and Rokewood Apples for the mainland of Australia at the spring section of the Imperial Fruit Show. Mr. Simpson also received second prize for Dunns Apples. He thus receives the Challenge Cup. This grower won prizes last season at the same show.

Mr. H. Lake, of Bridgetown, is also to be congratulated on securing third place for Jonathan Apples, second place for Tasmans, third place for Granny Smiths and third place for Democrats.

W.A. DRIED FRUITS BOARD.

A meeting of the Executive of the Dried Fruits Board of W.A. was held on April 20. There were present Messrs. J. N. Cox (Chairman), P. H. Taylor, and H. O. Newman. Apologies were received from Messrs. Howie and Lawson.

The Commonwealth tentative export quotas for 1932 were formally approved, these being as follows:—Currants, 85 per cent.; Sultanas, 90 per cent.; Lexias, 75 per cent., which had been subsequently revised, following a meeting of the consultative committee, thus:—Currants,

82 per cent.; Sultanas, 85 per cent.; and Lexias, 75 per cent. Advice was received that the N.S.W. Dried Fruits Board had gazetted that State's export quotas for 1932 as 75 per cent. each for Currants, Sultanas and Lexias.

Other items dealt with were interstate carriers' licenses, shipments interstate ex W.A., buck Currants and distillery fruit, registration of dealers, home and export quotas, 1931, importations, sieving of Currants, and growers' returns.

Bridgetown.—At the May meeting of the Bridgetown Fruitgrowers' Association, Mr. H. Lake presiding, it was decided to refer to the next Conference the matter of chartering steamers to lift cargoes as was done in Tasmania.

It was decided, on the motion of Messrs. Abbott and Sparks, to enquire from the Railways Department the reason for the freight on shooks to Bridgetown being 2d. per dozen more than to Glen Lynn.

“Dad, give me a penny.”

“Not to-day, sonny.”

“Dad, if you'll give me a penny I'll tell you what the iceman said to mama this morning.”

“Here, son, quick; what did he say?”

“He said, ‘Lady, how much ice do you want this morning?’”

Fruit Fly Trapping Experiments in W.A.

TO DISCOVER IMPROVED METHODS for the control of the fruit fly (*Ceratitis capitata*), a series of trapping or luring tests has been undertaken by the Western Australian Department of Agriculture. In a bulletin issued by the Department, signed by L. J. Newman, F.E.S., Entomologist, and B. A. O'Connor, B.Agr.Sc., details are given of their experiments. The following information is given:—

Many experiments along this line had previously been made, which demonstrated that the actions of insects are, to a large extent, directed by the sense of smell rather than that of sight. The sense of smell has been proved to be, for certain substances, remarkably acute. In an attempt to play upon this olfactory susceptibility we have continued our research. This is known as Chemotropism, which in common parlance means a reaction to stimuli of a chemical nature, perceived by the insect through its sense of smell. In the same manner it may be possible to discover some odor which will have a negative chemotropic reaction and thus act as a repellent.

Some of the chemicals tried proved to be absolutely neutral, the flies being neither attracted nor repelled. A fairly large number of weak attractants have been found, but few strong ones.

The discovery of the pollard and borax lure, evolved by us, was the first successful trapping medium that was recommended against this fly. This lure held its own until some 15 months ago, when we discovered that the proprietary spray known as "Clensel" gave better results.

In the Clensel we have a considerably more powerful lure. Just what is the particular constituent of this liquid soap that exerts this influence over the fly, has not been determined. It may not be due to any single factor but to a combination of attractive compounds. Having made this discovery, it was decided to test it out against the pollard and borax lure. The tests were carried out over a period of 12 months in a suburban garden. The first thing that had to be determined was the most effective and economical strength at which to use Clensel. It might be supposed that the stronger the concentration, the greater the catch of flies, but this is not so. There is a limit to the strength to be used, beyond that there is no advantage; in fact, it was proved to be disadvantageous and rendered the treatment uneconomical.

Trials were commenced on May 28, 1930, and continued throughout the winter, spring and summer, to May 14, 1931. During these luring trials we also tested out the relative values of tins versus glass traps.

The lures used were Clensel at strengths of 1 in 20, 30, 40, 50, and 80 parts of water and the Departmental pollard, borax and water mixture. Ten tins, and ten glass jars of a capacity of half pint were used, making a total of 20 traps. These were half filled and placed, two of each type, making a total of four in each tree. The lures were renewed every seven days, and the total flies and their sexes in each trap recorded. In the following are given, in tabulated form, the results of the 12 months' trials:—

Experiment Commenced May 28, 1930—Terminated May 14, 1931.

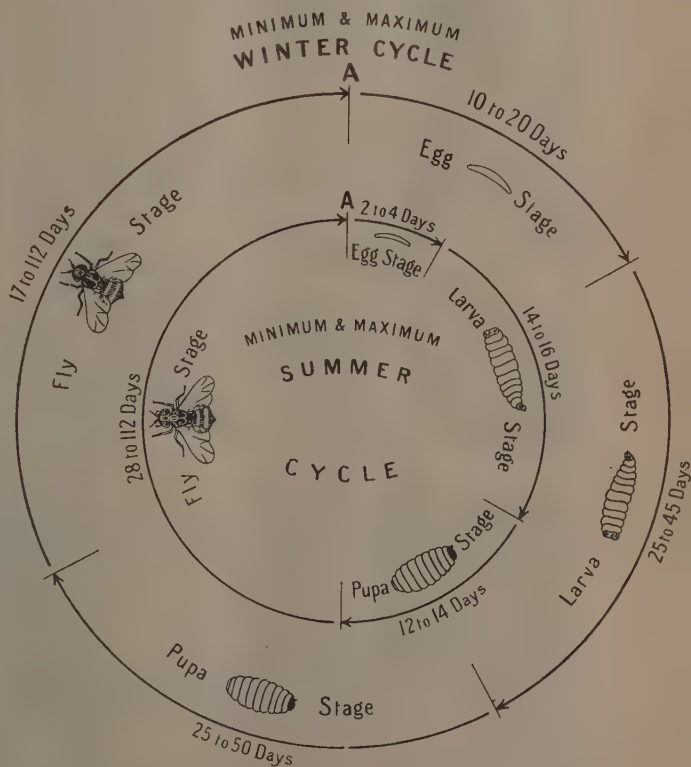
Lure.	Males.		Females.		Total.
	No.	%	No.	%	
Clensel	4,888	29.8	11,514	70.2	16,397
Pollard and borax	1,066	26.3	2,990	73.7	4,056
					20,453

A perusal of this table reveals that the Clensel lure captured 16,397 fruit flies, or roughly four times as many as the pollard and borax. Further, it will be seen that the percentage of females is only slightly less than the pollard and borax.

Table 2.—Tin versus Jar.

	Males.		Females.		Total.
	No.	%	No.	%	No.
Tin	3,636	30.5	8,286	69.5	11,922
Jar	2,313	26.3	6,218	72.9	8,531
					20,453

The results brought about by this test show, taking the year through, that the tin traps yielded some 3,391 more flies than the glass ones. This lead was gained during the height of the fly season (February to April) when luring is less effective as a means of control. It was noted, however, that during the months of July to October the glass traps gave practically as good results. As this is the most important trapping period, we would recommend the use of glass jars in preference to tins for the following reasons:—They do not rust or lose their brightness; they last a lifetime unless broken; glass jars are more readily kept clean than tins; the flies captured can be readily seen by the operators and thus they are stimulated to continue the operation of the traps.



Diagrammatic Life Cycle (original).

[L. J. Newman.]

Table 3.

In this table are given the monthly capture, percentage of sexes, aggregate percentage of males and females, and total captured in the combined lures.

Month.	Males.		Females.		Total.
	No.	%	No.	%	
June	306	15.3	1,693	84.7	1,999
July	14	12.8	95	87.2	109
August	6	30.0	14	70.0	20
September	7	20.6	27	79.4	34
October	7	41.2	10	58.8	17
November	13	41.9	18	58.1	31
December	57	29.4	137	70.6	194
January	396	53.2	349	46.8	745
February	39	47.6	43	52.4	82
March	1,370	28.7	3,396	71.3	4,766
April	2,987	29.8	7,018	70.2	10,005
May 15	747	30.5	1,704	69.5	2,451
Total	5,949	29.1	14,504	70.9	20,453
					No.
					Total males 5,949
					Total females 14,504
					Total 20,453
					%
					Aggregate 29.1
					do. 70.9

By a study of this table the rapid falling away in the number of flies captured after the month of June is shown. It is not until late November that any great increase in capture is again noted. This has been proved each year that tests of this nature have been made and goes to substantiate our oft-repeated declarations, that this fly is mainly, if not solely, carried over the months of July to November, per medium of over-wintering females.

These flies are attracted to the citrus trees which offer good shelter from the rain, wind and cold. The flies feed upon honey dew given off by scales and aphides, juice of split citrus fruits, etc. It is always important in dealing with an insect pest to determine how and where it spends the winter, because it can often be fought more efficiently during this season than during the period of its summer activity. There is definite evidence that the fruit fly, provided it can obtain the necessary shelter and food supply, can withstand considerable periods of cold and wet. We have failed to find any native fruits suited to the propagation of this fly, hence the trouble is confined to our orchards. This renders the control considerably easier than in those countries where suitable native fruits exist outside the orchards.

Summary.

Clensel at a strength of 1 part to 30 parts of water is recommended as the luring agent. It attracts both sexes of the fruit fly. Renew lure every seven days in summer or whenever traps go dry. Renew in cool weather every 10 to 12 days.

Glass jars as traps are advised, especially during the months of July to December.

The most effective time to lure is between July and December. One female fly captured during this period is worth thousands caught during the peak of the season.

If fruit is present on trees, hang traps in proximity to same.

Hang traps in sunny aspect from April to October. During summer, hang in shady position.

The minimum number of traps per tree is two. As many more may be used as the operator can attend to.

The trapping or luring method is advised for small orchards up to 200 trees. In larger orchards they may be used as indicators of the presence of the fly, when the foliage bait should be at once applied once a week.

Trapping appeals to most people (this is particularly so when glass jars are used) because it gives great satisfaction to the operator in that he or she is able to see the capture.

The most vulnerable period to attack this fly is between the months of July to December. Unfortunately, most growers take little or no interest in the pest until it again appears in plague form.

In view of the known facts concerning the fruit fly in this State, it behoves all growers, large or small, to continue the warfare throughout the whole year, whenever weather conditions will permit. The reduction brought about by the destruction of the winter and spring flies is most important in any control of this pest.

The captures may be few, but it must be remembered that these are the progenitors of the myriads which appear in the mid and late summer.

Once again it must be repeated that orchard sanitation must be strictly practised, which means the keeping clean of all litter and rubbish, and the daily picking up and boiling of infested fruits.

The alternative formula is made of the following ingredients:—Pollard, 8 oz.; powdered borax, 8 oz.; arsenate of soda, $\frac{1}{2}$ oz.; water to make 1 gallon of liquid.

Method of Making.—Mix the ingredients together thoroughly and allow to steep for 14 to 16 hours. At the end of this period again shake well together and allow to settle.

The heavy matter will fall to the bottom of vessel, leaving a fairly clear amber-colored liquid. Draw or syphon off the liquid, discarding the residue, which should be buried, and make up to 1 gallon by the addition of water. By using only the clear fluid, the clogging of the traps is prevented. This preparation, if kept corked, will keep for a considerable period.

The lure should be renewed every seven to ten days in summer and every 12 to 14 days in winter.

THRIPS REDUCE PRUNE CROPS.

Californian Prunes Imported.

IN a report received by the Minister for Commerce it is stated that, although Prunes exported from Australia in the nine months ended March amounted to 403,077 lb. and were valued at £5,299, compared with 9,547 lb. valued at £312 in the corresponding period of the previous year, a great shock was suffered by the industry. This was due to the ravages of thrips in the main producing centres, notably at Young (N.S.W.).

The normal Prune production for the Commonwealth was 6,720,000 lb., of which 5,640,000 lb. were required for the home market. Owing to the decrease in production last year, orders for Canada could not be supplied by Australian growers. It had been necessary also for Australian packers to import Prunes from California and to pack and reprocess them to retain trade connections.

Think kindly of everybody, even the fellow who would injure you to-day. There's good in him: to-morrow he will be a good friend.

CITRUS MATURITY STANDARDS.

Producers and Consumers Benefit by Regulations.

MATURITY STANDARDS FOR CITRUS fruits, and regulations connected therewith are dealt with in the May issue of the "Victorian Journal of Agriculture" by Mr. J. L. Provan, Horticultural Research Officer. After describing the gradual ripening process, Mr. Provan points out that many people who buy colored but sour fruit decide not to buy Oranges—for the time-being at least, thus causing loss of sales, to the detriment of the industry as a whole.

The standard of maturity agreed upon by interstate horticulturists is that for Navel Oranges the amount of acid in ten cubic centimetres of Orange juice shall require not more than 26 cubic centimetres of standard alkali (decinormal sodium hydroxide) to neutralise it. For more acidic seed varieties, 30 c.c. of alkali is allowed. In the Commonwealth regulations the standard of maturity for export was fixed at 23 c.c.

Citrus fruits mature at different times. Locality, soil, cultural operations, and the stock, all affect maturity. There are many intermediate types of Navel Oranges which ripen at different periods. The size of the Orange appears to be closely related to its ripeness. Early districts such as Mildura, should market a large proportion of their fruit early, in order to maintain an even supply. By placing a good supply of ripe fruit on the market, much immature fruit would be excluded because no demand will exist for the inferior class. With the sympathetic co-operation of Victorian Citrus Growers, immature fruit can be kept off the local market to the ultimate benefit of both consumer and producer.

Mr. J. A. Parkes, manager of Victorian Central Citrus Association Pty. Ltd., and Secretary of the Federal Citrus Council, states that the prospects of exporting citrus to the United Kingdom are not promising, but a good market is expected in New Zealand.



Picking Oranges.

—(Illustrations by courtesy "The Journal of Agriculture," Victoria.)

Mildura Citrus Association.—At the recent annual meeting Mr. W. Newton was re-elected President, and Mr. H. Wormwell as Secretary. Messrs. A. Smart and J. Gordon were elected to the Committee. The President, Secretary and Mr. R. Hollick were appointed delegates to the District Council.

Citrus Crops at Mildura.—The citrus crop in the Mildura district is estimated this season at 371,000 bushels, a decrease of 10,000 bushels compared with the harvest of last season.



One of the largest Washington Navel Orange trees in Victoria—at Mr. C. C. Whiteley's grove, Irymple, near Mildura.

Answers to Correspondents.

Thrips.—"J.C.I.", Spring Hill, N.S.W., writes:—I am interested in the investigation of thrips and would be pleased if you could inform me if there is any likelihood of danger in planting a tree lucerne hedge around the orchard. I noticed this last season in a neighboring orchard that the thrips were very thick on the tree lucerne blossom, yet these same blossoms set plenty of seed. He has tree lucerne for a windbreak, and I have pine trees; he did not spray at all for thrips, and I sprayed with black-leaf 40 and lime sulphur, yet his Jonathans had about the same setting as mine, while in both orchards Granny Smith failed to set fruit, although there was plenty of bloom. Has the structure of the flower anything to do with the action of the thrips upon the setting?

Answer (by K. M. Ward, Entomologist, Vic. Department of Agriculture).—Your correspondent asks whether the planting of a tree lucerne windbreak around his orchard would be dangerous in view of the habits of thrips. I should decidedly advise against this step, and in fact against the planting of any windbreak which has a soft tissue flower. Tree lucerne has a long flowering period and flowers profusely during spring, and further, it has a flower very suitable for the breeding of thrips. Thus, in a thrips year, such a windbreak would prove a constant and a serious source of infection for the apple blossom.

If pine trees will grow satisfactorily in the district they would be much more preferable.

The degree of injury which thrips can cause to a flower undoubtedly depends on the structure of that flower. Thus a flower having soft tissue and fairly delicate organs (e.g., rosaceous flowers, i.e., Apple, berry fruits, etc.), is much more readily prevented from setting than a strongly constructed flower like, say, a citrus blossom which has large, strong pistil.

Answer (by C. G. Savage, N.S.W. Dept. of Agriculture).—1. The thrips outbreak only occur about every six or seven years. 2. Some blossoms resist attack better than others. We have no data re tree lucerne blooms. 3. Spraying with blackleaf 40 and lime sulphur during the past year was found ineffective, but some recent tests indicate good results by adding resin wash to blackleaf 40. 4. Jonathan Apples set better throughout this State than most other commercial varieties. 5. Structure of the flower has some influence upon thrips damage. Certain Apples with stout stigmas stood up better to thrips attack than those with slender stigmas.

Tar Spray.—"J.S.", Tunstall, Vic., writes:—In your issue of August 1, 1931, page 484, you have a short article headed "Tar Spray Kills Peach Aphids." (1) Will you kindly say if any more is known re this? (2) Can you say what this tar distillate is? (3) Where can it be obtained, and from whom?

Answer (by William Cooper & Nephews Ltd., Sydney, N.S.W.).—Tar oil washes have been used now in Australia for three seasons. In the first year's tests carried out, tar washes were imported from England, as they were not on the market in Australia. There is now, however, a tar distillate on the market here manufactured by ourselves under the name of "Ovicide," and this was used in the tests at Leeton referred to in the article published. Ovicide has also given outstanding results in all tests since carried out, so much so that the Department of Agriculture in New South Wales use it exclusively in their own orchards.

It must be clearly understood that Ovicide or any other tar distillate wash is for use only in the dormant periods, i.e., there must be no sap movement in the tree, and the buds must be unswollen.

The main use of a tar distillate wash is, as indicated, for Peach and Cherry aphid, but it has also given complete results against red spider (Bryobia), San Jose scale, and woolly aphid, and is a general tonic and cleanser to all deciduous trees.

In addition to the fine results obtained in New South Wales, growers and Departmental officials in the Stanthorpe area of Queensland have also obtained similar results, and if any confirmation of this is required we can refer you to Mr. Hubert Jarvis, Entomologist, Stanthorpe, or Mr. W. B. Gurney, Entomologist, Sydney.

Ovicide may be obtained direct from this office or through our various agencies in Victoria and other States. Practically all fruit packing sheds are handling our products, but if any difficulty is experienced we would advise your client to get in direct touch with us.

Green Peach Aphid Control.—"J.K.W.," Ringwood, Vic., asks:—

(1) Is the dormant spray of 1 in 9 lime sulphur (for brown rot in Peaches and Cherries) sufficient also to control eggs of green Peach aphid in place of the usual oil spray?

(2) In the later spray of black leaf 40 for green aphid, is it an advantage to add 1 in 100 white oil?

Answer (by J. M. Ward, Superintendent of Horticulture).—

1. The lime sulphur spray of 1 in 9 is made more efficient as an ovicide by the addition of 1 gallon of a casein-lime emulsified white oil to 80 gallons of spray.

2. Yes. The addition of a summer white oil is recommended, and if spray is applied in cool weather the addition also of half a lb. of a casein-lime spreader makes the spray more effective.

Answer (by Everard Thiele, Doncaster).—In answer to the first enquiry, I am unable to give you any information as I do not use (1) lime sulphur to control brown rot, I use 3 gallons of crude oil emulsified with 3 lbs. soft soap as a dormant spray to control eggs of aphid (applied about third week July), and follow this up with a Bordeaux mixture, 9-6-80 (to control curl leaf and rust) during the month of August.

(2) Some of the growers here add $\frac{1}{2}$ to $\frac{3}{4}$ gall. of white oil to 80 gallons water, into which they add $\frac{1}{2}$ to 1 pint of black-leaf 40. Personally, I use 2 lbs. soft soap and $\frac{1}{2}$ of pint of blackleaf 40 to 80 gallons and find this mixture quite efficient.

TO CONTROL CITRUS DISEASES.

Spraying citrus trees with Bordeaux is recommended for dealing with black spot, exanthema, and melanose. The spraying begins when the trees are in bloom. For black spot three applications are usually necessary, the spraying being continued till well into the summer.

Fumigation will eradicate white wax scale, but it is fatal to fumigate following a Bordeaux spray.

* * * * *

Do not despise or resent competition: it tests your own efficiency. Let competition be in quality and service, not in under-cutting prices.

TASMANIA.

Record Export Overseas of 3,415,716 Cases.

WHEN THE STEAMER "BALLARAT" sailed from Hobart in mid-June with 59,000 cases of fruit, this closed the Tasmanian export season—a record in that the grand total was 3,415,716 bushels of Apples and Pears exported overseas. The previous largest export was made in 1928, when 2,804,704 bushels were shipped. Comparative figures for the past three seasons will be noted as follows (in bushels):—

1930.	1931.	1932.
2,722,127	2,385,819	3,415,716

In the 1932 season 49 ships came to Tasmania for fruit cargoes: 2,914,769 bushels of Apples and 65,818 bushels of Pears went from Hobart and Port Huon. From the Tamar the exports were:—Apples, 418,838 bushels, and Pears 19,422 bushels.

For both overseas and interstate the estimate is as follows:—Apples, 4,900,000; Pears, 165,000.

Good weather was experienced through the shipping season, enabling the picking, packing, transport to ship's side and loading to proceed smoothly. While interstate prices have not held up as usual, an improvement is expected from August onwards.

For the overseas export trade vessels from the following companies lifted fruit from Tasmania:—

Orient, P. & O. branch, Commonwealth and Dominion, P. & O. mail steamers, Hamburg-Amerika, Blue Funnel, Aberdeen and Commonwealth, Clan line, N.Z. Shipping Co., Donaldson-South American line, Royal Mail Steam Packet line, Scottish Shire line, Furness Houlder line, Norwegian-Australian line, Federal Steam Navigation Co.

Some of the heaviest loadings were as follows:—"Natia," 199,141 bushels; "Navasota," 197,135; "Argyllshire," 192,743; "Hurunui," 168,940; "Ferndale" (South only), 148,116; "Canonesa," 141,355; "Port Fairy," 140,102; "Port Campbell," 138,441; "Port Hobart," 124,535; "Corrientes" (South only), 118,033; "Fordsdale" (South only), 114,008.

Some ships were brought to Australia in ballast in order to pick up Tasmanian export fruit.

One Norwegian ship—the "Tigre"—carried over 30,000 cases of Apples.

The improvements in the grading and packing are most marked and Tasmanian growers and packing houses are to be heartily congratulated. It is quite certain that, benefiting by past experiences, the Apple trade of Tasmania is settling down to the adequate requirements of a commercial industry. The Department of Agriculture is performing useful service with its programme of packing instruction. This, linked up with co-ordinated inspection on the wharves, has materially assisted the organisation of a dependable export pack. In addition to the improved grading and packing methods, the outside appearance of the case has been improved through the use of seasoned timber, planed ends, neat stencils, and the use of colored labels.

The bulk of the overseas export fruit went to London, followed by Liverpool, Hull, Manchester, Glasgow, Newcastle-on-Tyne, via Hull, and Bristol, via London. Two shipments went to Manchester. Direct shipments to Hamburg were less than usual. In fact, the principal Continental port for the 1932 pack was Rotterdam.

Apart from fruit sent to the United Kingdom and the

Continent, consignments were sent to Egypt and the near East and elsewhere. Some of the destinations which might be mentioned are:—Port Said, Cairo, Colombo, Bombay, Sourabaya, Singapore, Batavia, Java, Hong Kong, Shanghai, also Dunkirk and Antwerp.

Mr. "Ben" Watson Honored.

Discoverer of Valuable Spray Programme.

RECENTLY a big and representative gathering of Southern Tasmanian fruitgrowers met at Franklin and presented a gold watch to Mr. Ben Watson, of "Tarna Tan," Castle Forbes Bay, for making widely known his spray programme, which had proved so eminently successful in combating black spot and had cut down costs of production.

High tributes of praise were paid by Wardens G. C. Frankcomb, A. Davies, E. Burgess, Crs. D. E. Ryan, H. G. Hay, and T. Donohoe, and Mr. Gordon Smith.

Special mention was made of the fact that Mr. Watson had freely and without reserve placed his valuable experience before growers, resulting in benefits of outstanding importance.

The proceedings were most enthusiastic, and Mr. Watson was accorded an ovation when the time came to reply.

The spray programme is as follows:—

- (1) 6 lb. bluestone, 4 lb. lime, 40 gals. water, to be applied when the buds are in green tip.
- (2) 2½ gals. lime sulphur to 40 gals. water when buds are in the pink.
- (3) 1 gal. lime sulphur and 1 lb. arsenate of lead powder in the calyx stage.
- (4) 5 lb. atomic sulphur with second lead spray.
- (5) Ditto with third lead spray.
- (6) Ditto with fourth lead spray.

The lead sprays are put on at intervals of one month. Mr. Watson uses a tractor to haul the spraying outfit through the orchard.

LEENAH VALLEY.

THERE was an average crop at Leenah Valley, where Apples and small fruits are grown only a short tram ride from the city of Hobart. The holdings here are small and the average yearly crop of Apples is about 20,000 cases. One of the principal growers at Leenah Valley is Mr. M. Calvert, who also has big orchard interests at Huonville. Mr. Calvert has six acres in bearing and about eight acres of young trees at Leenah Valley, and his orchard shows evidence of careful cultivation, such as would be expected from an orchardist of long experience.

This grower has the reputation of being able to make two Apples grow where most people get one. He has been a reader of the "Fruit World" since its inception, and admits having gleaned much knowledge from its pages. The varieties grown by him are Democrats, Cleopatras, Jonathans, Sturmers, Delicious, Scarlets and Alfristons. A small quantity of Pears are also grown. Most of the fruit from Leenah Valley is marketed locally and on the mainland.

One of the orchardists at this picturesque valley is well-known throughout Tasmania as a distiller of wines made from various kinds of small fruit. Cherries, Rasp-

berries, Grapes, Plums, Red Currants, and even parsnips are used to make wine and it is reported by those who have tried it, that some of the wines have a "kick" like an army mule. The Lady Franklin Museum, made by convict labor in the early days, is one of the landmarks

of the district. It is made of freestone and is a very solid looking structure. As a museum, however, it is no longer required, and the growers of the valley use it as a storehouse for fruit. Even the relics of the past have their uses.

Australian Apple and Pear Export.

Nearly 5,000,000 Cases and Previous Records Broken.

IN a statement issued the Minister for Commerce (Mr. C. A. S. Hawker), the total exports of Apples and Pears from Australia during the current season amounted to 4,654,688 cases of Apples and 293,924 cases of Pears, as compared with 3,226,512 cases of Apples and 347,039 cases of Pears exported during the 1931 season.

Details of the exports from the various States are as follow:—

	1931 Season.		1932 Season.	
	Apples. Cases.	Pears. Cases.	Apples. Cases.	Pears. Cases.
Queensland	3,134	64	8,286	457
New South Wales	51,416	8,539	8,268	5,124
Victoria	361,234	206,055	134,708	151,277
South Australia ..	28,230	5,534	440,252	7,777
West. Australia ..	473,260	16,480	704,532	44,044
Tasmania	2,309,238	110,367	3,358,642	85,245
Total	3,226,512	347,039	4,654,688	293,924

The quantity of Apples shipped this season, viz., 4,654,688 cases, established a new record, the largest quantity previously exported being in 1930, when 4,344,680 cases were sent overseas. This new record is all the more gratifying when it is realised that the crops in Victoria and New South Wales were seriously curtailed in consequence of the damage by thrips, and much reduced quantities were shipped from these States.

The largest exporting State was Tasmania, from which

3,358,642 cases of Apples and 85,245 cases of Pears were shipped. The quantity of Apples shipped from Tasmania this season exceeds the previous record of the State in 1928 by more than 600,000 cases.

The exports of Apples and Pears to overseas ports have now practically finished for this season. The last shipment of 2,500 cases of Apples from Victoria went forward by the "Jervis Bay" on June 15, and about 11,500 cases of Apples will be lifted by this vessel at Fremantle. Small quantities will continue to be exported for some months to India, the East and the Pacific Islands.

Mr. Hawker stated that the reports received from London showed that with the exception of a few of the earlier shipments, which to a certain extent had been affected with bitter pit, the Australian fruit had arrived in good condition. The grading, packing and quality of the fruit had been highly commended, and packers were also to be complimented on the attractive appearance of the cases.

The prices obtained in England for the greater part of this season were considered to be satisfactory. Early in June, however, the arrivals of Apples were exceptionally heavy, and this had resulted in a drop of 2/- per case. The prices obtained in Germany have not been as good as was expected, owing to the strong competition from American Apples, larger quantities of which had been diverted to Germany in consequence of the duty of 10 per cent. which had been levied by England on foreign fruit this year.



This is what an experienced Grower says of Shell Spraying Oils:—

"I have used Shell Spraying Oil on peaches, apples and pears, and have found it entirely satisfactory. The trees are perfectly clean, showing no signs of any scale, aphid or red mite, and the emulsification of the oil is perfect."

Order YOUR supplies now!

SHELL SPRAYING OILS

THE SHELL COMPANY LIMITED



What does the Codlin Moth cost You?



Spray with "Aero" brand Arsenate of Lead as the best insurance against loss from the Codlin Moth, the Orchardist's worst enemy.

"Aero" brand Arsenate of Lead is so impalpably light in texture that it gives the maximum coverage, so fine that you can spray all day without choking the spray nozzle. It has such a high arsenical content that it gives the greatest killing power, yet so low in free Arsenic Oxide that it will not burn or scald the foliage. Although of such superfine quality it is no dearer than inferior Arsenates.



The above are a few reasons why Bickford's "Aero" brand Arsenate of Lead is the choice of the leading Orchardists throughout the Commonwealth.

Awarded Gold Medal All-Australian Exhibition, 1930.



BICKFORD'S "aero" BRAND ARSENATE OF LEAD

By every Test Bickford's "AERO" Brand is Best

TASMANIA (Northern Districts)—
GARDNER & MCKENZIE PTY. LTD.
64 Cameron Street, Launceston.
TASMANIA (Southern Districts)—
PORT HUON FRUITGROWERS CO.
OP. ASSOCIATION LTD.
Davey Street, Hobart.

INTERSTATE AGENTS:
WESTERN AUSTRALIA—
FELTON, GRIMWADE & BICKFORD
LTD.
297 Murray Street, Perth.
NEW SOUTH WALES—
BUZACOTT & CO. LTD.
7-11 Market Street, Sydney.

QUEENSLAND—
BUZACOTT (QUEENSLAND) LTD.
413 Adelaide Street, Brisbane.
VICTORIA—
RAMSAY & TREGANOWAN LTD.
469-477 Latrobe Street, Melbourne

The Home of Bickford's "Aero" brand Arsenate of Lead



A view of our new Arsenate of Lead works at West Croydon. The building is constructed on the most modern factory lines and is replete with every convenience for the comfort and welfare of the staff.

WE have manufactured and sold Arsenate of Lead now for well over twenty years, and, following upon a wonderful improvement in our product some ten or twelve years ago, we placed the product on the market under the now well-known name of "Aero brand" Arsenate of Lead. We were the first firm in Australia to manufacture Arsenate of Lead Powder, and the surpassing fineness and lightness of texture of our product have never been approached by any other make.

We employ a special process which yields a product of superlative quality, and the new plant which we erected four years ago enables us to manufacture to an even higher standard than before, since new methods of control and adjustments

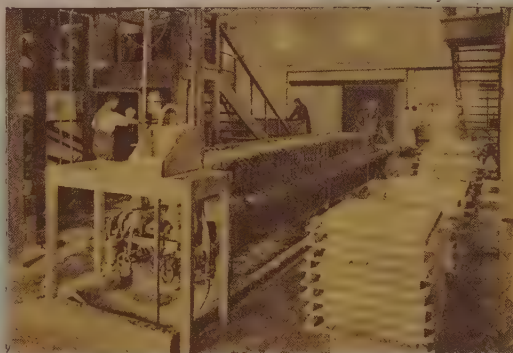


An interior view of our new Arsenate of Lead plant showing the huge vats. The one in the foreground contains the slurry as fed to the filter press pumps.

have been introduced that were not previously available. Analytical control is exercised over every batch of "Aero brand" Arsenate of Lead.

The most exacting tests are employed to ensure uniform fineness and lightness, a high percentage of Arsenic and a very low percentage of soluble Arsenic. "Aero brand" thus sets a new standard in its low soluble arsenic content.

"Aero brand" Arsenate of Lead is fully guaranteed and in whatever proportion used will give equal or superior control to that of any other brand used in similar strength.



Another view of our new Arsenate of Lead plant, showing the giant filter press where the Arsenate is separated from the water.

SOLE MANUFACTURERS:

A. M. BICKFORD & SONS, LIMITED

WHOLESALE MANUFACTURING CHEMISTS AND DRUGGISTS

42, 44, 46, CURRIE STREET, ADELAIDE

LABORATORIES AND WORKS:

99, 100, WAYMOUTH STREET, ADELAIDE, AND PORT ROAD WEST CROYDON

Victoria.

Tyabb.—The past season has been one of great vicissitudes in this district.

During the winter the prospects throughout the greater portion of the Apple orchards in Victoria were that there would be a heavy crop of Apples, and that the difficulty would be to market such a crop in these days, when most people's spending powers have been considerably restricted.

This anticipation of the prospects was based on the appearance of the trees during the pruning season and also the fact that many districts had had only moderate crops during the preceding season.

However, whatever the reason may have been—unseasonable weather at the time of blooming, the very wet winter, the large numbers of thrips about—the actual setting of fruit was only moderate. In the Somerville, Tyabb, and Hastings district, the setting of Apples, though, generally speaking, fairly good, might truly be described as "patchy." Some orchards had heavy crops, while others were light.

Generally speaking, orchards which were fairly well drained were well cross-fertilised, and had not had an

people being in regular work are able to spend money more freely, it is to be hoped that not only will the fruitgrowers be able to produce good crops of Apples, but that distribution will be improved. It has recently been pointed out that production in most cases has progressed much better than means of distribution.

In America the consumption of Apples is twice as much per head as it is in Australia, and given normal times of prosperity, there is little doubt that by a well-organised scheme of advertising the benefit to the health through Apple-eating, backed up by planning out better distribution through special trains, and other means, our amount of Apples consumed per head could be made equal to that in America.

If my that means "gluts" could be avoided, a medium reasonable price (year by year) would pay the grower, and everyone would benefit.

PASSION FRUIT EXPORT.

Passiflora Plantations Pty. Ltd. is a company established with headquarters at 40 Queen-street, Melbourne, for developing the Passion Fruit industry for export purposes.

The directors state they have perfected a method with-

**Fruit Shipments
United Kingdom
and the Continent**

**W. D. PEACOCK
& CO.**

London Fruit Exchange,
Spitalfields, London, E.1.
AND HOBART, TASMANIA

Solicit Consignments

The High Standing and Long Experience of this Firm is a Guarantee that the Best Interests of Consignors will be conserved.

**Poultry Keeping a Profitable
Sideline for Orchardists !**

Read the
**Australasian
Poultry World**

Published Monthly

6d. per Copy or 6/- per annum

Box 1944, G.P.O., Melbourne

RIDLEY & HOULDING
Covent Garden Market
LONDON

Specialists in Australian Fruit.

Soleit consignments of Apples, Pears, Etc.

Our record of over 30 years' standing in the handling of Australian fruit, with satisfactory results, is a recommendation for growers to ship their fruit to our house.

Representatives—

International Fruit & Mercantile
Company Ltd., Melb., Vic., Australia;
and A. J. Walshe & Co., Hobart,
Tasmania.

unduly heavy crop the previous season had a good crop in 1932.

The season itself was unusual—the early summer unusually dry, and then when the rain did come, it turned into a rather wet summer. A severe hailstorm did much damage to the Apple crops along the higher ground through Somerville, Moorooduc, Tyabb and Hastings. It was undoubtedly very hard lines on these growers to lose their Apples, after having brought them nearly to the picking stage. In consequence of this storm and the general uncertainty of the weather, a fair number of growers picked their Apples earlier than usual.

Much of the fruit from this district has in the past gone to Brisbane; that market this year has been disappointing, either Queensland or Tasmania having provided an ample supply of Apples.

The market for early Apples was very good in Melbourne, however, and has been good through the picking of the crop.

These prices have been good owing to the crop being only a moderate one.

Better Distribution Needed.

In the future, when the "depression" has lifted, and

out sterilisation for shipping both fresh Passion Fruit and Passion Fruit pulp overseas, and trade is expected with U.S.A., Canada and elsewhere.

The company is co-operating with the Council for Scientific and Industrial Research, providing a technique for overseas shipments. The technical expert and supervisor is Mr. John Farrell, late of the Department of Agriculture; the plantation manager is Mr. C. Harrison, orchardist and nurseryman, of Red Hill. The company is issuing freehold debentures at £10 each for lands now being planted with Passion Fruit.

The "topping" of fruit is still an evil at the Victoria Market, Melbourne. The efforts of the Departmental prosecuting officers, however, are largely nullified because of insignificant penalties inflicted on offenders: Some of the fines range from 30/- to 21/-, leaving unscrupulous dealers free to continue their unpleasant business.

Mildura Show.—The annual show of the Mildura Horticultural and Agricultural Society will be held on July 22 and 23. Schedules and entry forms are available on application.

DEPUTATION REQUESTS PRIMARY PRODUCTS MARKETING BILL.

DRIED TREE FRUITS CONTROL.

Minister's Sympathetic Reply.

Attitude of Northern Victorian Fruitgrowers.

A DEPUTATION representing the wheat, egg, potato and Onion industries waited on the Minister for Agriculture (Mr. John Allan) on June 8, requesting the introduction of the Primary Products Marketing Bill, which had previously passed the Legislative Assembly, but had been rejected by the Legislative Council.

Messrs. Bennett and Wettenhall, M's.L.A., supported the speakers who favored the bill.

Mr. A. E. Hocking stated that while he was President of several fruit organisations he was speaking at the deputation in an unofficial capacity. He said that the dried fruits industry was operating successfully under the principle of collective marketing. There was some difference of opinion in the soft fruit industry, but he believed the time had come for a definite revision of the present marketing methods. The principle of a minimum wage was fixed for city industries; the same should apply to the fruitgrower, so that he could get a definite mini-

The annual meeting of the Northern Victoria Fruitgrowers' Association was held at Kyabram on June 16. Delegates were present from Kyabram, Tatura, Lancaster, Shepparton and Ardmona.

Officers elected were:—President, Mr. W. Young (Ardmona), for the seventh term; Vice-Presidents, Mr. J. G. B. Macdonald (Shepparton); Secretary and Treasurer, Mr. S. P. Cornish (Ardmona), who, with Mr. W. F. Cooper (Lancaster), will comprise the Executive.

Following a previous discussion of the proposed control of dried tree fruits (Peaches, Pears, Apricots, Nectarines, and Prunes), it was agreed to forward the following resolution to the Minister for Agriculture:—"That, in the event of being forced under control, we approach the Federal Government to provide a bounty to make up any loss on the export of dried tree fruits."

Herbert Wilson

Pty. Ltd.

Wholesale Fruit Merchants
and
Commission Agents

Nos. 1 and 10 Wholesale Fruit Market
Melbourne.

Accredited Agents for Victorian
Central Citrus Association and
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Bankers: City Telephone
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Tasmanian Apples

Orders for Apples carefully
handled and undertaken for all
Overseas & Interstate Markets.

E. R. COTTIER Pty. Ltd.

Temple Place, Macquarie Street
HOBART - - TASMANIA

Tel. add. "ERCOT," Hobart.

Consignment shipments solicited
on behalf of leading Fruit
Brokers and Salesmen through-
out England and Continent.

T. STOTT & SONS

Fruit Merchants

Established 1882

A Trial Consignment soli-
cited from Growers in all
States.

Prompt Settlement.

26 New Wholesale Fruit
Market, Melbourne

mum price that would cover the cost of production. The time was ripe for giving fruitgrowers the opportunity of saying whether they would have this co-operative marketing scheme or not; he believed the growers would be prepared to give it a trial.

The Minister replied in a sympathetic strain, and promised to bring the request of the deputation before the Cabinet, and he hoped the Government would be able to bring down a bill that would be fair to all sections and acceptable to the producers.

* * * * *

The foregoing has been the subject of spirited discussion in Southern Victoria, at Harcourt and other orchard centres. It is understood protest meetings are being arranged, as responsible fruitgrowers' Associations were unaware that a deputation had been arranged. Mr. Hocking's right to speak on their behalf is challenged.

Mr. W. A. Webb, President of the Doncaster Fruitgrowers' Association, said that his district is solidly opposed to the bill. It is recalled that when standing for the Legislative Council recently, Mr. Hocking spoke strongly against the proposed Marketing Act.

SULPHATE OF AMMONIA.

Further Reduction in Price.

Fruitgrowers throughout Australia will be heartened by the news that the price of sulphate of ammonia has again been reduced. This latest reduction makes it nearly 50/- a ton cheaper than it was twelve months ago, the present price of £11/8/6 less cash discount being the lowest ever recorded in Australia. Sulphate of ammonia has for some time past supplied nitrogen in its cheapest form, and the reductions in price since last fertiliser season permit it, more than ever, to maintain its lead. "Straight" superphosphate has been used by many growers for a long time, but the chief fertiliser development over the last few years has been the enrichment of superphosphate with sulphate of ammonia, and an almost revolutionary line of mixtures of "super and ammonia" is now being offered by the fertiliser trade, with certain "complete" lines to meet a rapidly-growing demand.

It is not too much to say that there is now available a mixed fertiliser for every crop, including grass,

REMOVAL OF SPRAY RESIDUE.

Latest News from U.S.A.

THE subject of the removal of spray residue from Apples and Pears is capably dealt with and illustrated in Farmers' Bulletin No. 1,687, U.S. Department of Agriculture. The bulletin states that present methods of spraying for the control of the codlin moth in Apples and Pears in many sections of the United States frequently result in an arsenical residue on the fruit in excess of the world tolerance of one one-hundredth grain arsenic trioxide per pound of fruit. Oil or lime-sulphur in the spray usually makes it more difficult to remove this residue, while lime in the spray facilitates removal.

Dry-cleaning methods generally cannot be depended upon to remove consistently over 30 per cent. of the residue from Apples. They also involve danger of mechanical injury to the fruit, especially Pears. Cloths or brushes used in dry cleaning should be changed frequently.

The use of chemical solvents has been found the most satisfactory method of removing arsenical residue. Commercial hydrochloric acid at the rate of 1 to 4 gallons per 100 gallons of water has generally proved most satisfactory. Exposing the fruit to the acid wash for one-half minute to five minutes, depending upon the type of equipment used, is recommended. A method of testing the acid strength is given. It is desirable to change the acid solution daily or after 1,000 bushels of fruit has been washed. Concentrated hydrochloric acid is very corrosive and must be handled with care.

Alkaline solvents are used in some cases, usually at a temperature of 100 deg. F. or above. Washing fruit with

these, however, subjects it to greater danger of injury than washing it with hydrochloric acid.

The efficiency of the acid solution is increased by warming it to a temperature of 80 deg. to 100 deg. F. With fruit that is especially difficult to clean, a special type of kerosene emulsion added to the acid solution gives good results. The addition of 1 to 3 per cent. of salt also increases the efficiency of the acid solution.

Thorough rinsing and careful handling of the fruit and systematic changing of the acid solution are essential in safeguarding the fruit against injury. It is not necessary to dry the fruit, although removing some of the excess moisture facilitates packing when fruit is wrapped.

Two simple types of home-made washing equipment are described. The cost of washing varies from 1 to 5 cents a bushel, depending largely upon the quantity of fruit handled and the equipment used. Cleaning properly done, improves the appearance of the fruit, often makes sorting and grading easier, and does not injure the keeping quality.

The bulletin is signed by Mr. H. C. Diehl (Senior Physiologist), J. M. Lutz (Junior Physiologist), and A. L. Ryall (Assistant Pomologist), Division of Horticultural Crops and Diseases, Bureau of Plant Industry, and the co-operation of the officers of the Department is acknowledged.

ARSENICAL SPRAY RESIDUE.

World Tolerance Now .01.

The Apple industry has been notified by Secretary Hyde, U.S.A., that the spray residue tolerance will be .01, beginning with the 1932 Apple shipping season. This is the same as the world tolerance which has been established for many years, and it is the objective aimed at by the Federal authorities. This will mean that virtually all Apples grown or shipped in any part of the country must be washed in the future. There is a big crop in the North-west, and much closer inspection will be necessary this year.—“Better Fruit.”

KYABRAM CANNERY.

Optimism Expressed at Annual Meeting.

THE annual meeting of grower-shareholders who supply fruit to the Kyabram Cannery was held at Kyabram on June 17, Mr. R. H. Gent (Chairman of Directors) presiding over an attendance of about 70. Messrs. A. D. Brown, F. J. Churches, and J. Higgs (Directors) and Mr. C. P. Crichton (Secretary) were among those present.

The Chairman reviewed the canned fruits industry. Sales in Australia and New Zealand were good: trade was being developed with the near East. The demand in the United Kingdom exceeded the supply. Sales were slow in Canada, but stocks would probably be cleared before next season. The canned fruits industry had a bright immediate future. While appreciating the value of a cool store, the directors recommended that the required expenditure be not incurred for the present. Hail insurance had proved a wise precaution. The prospects for the coming and the following seasons' packs appeared satisfactory. In 1930 the cannery handled 3,700 tons of fruit; in 1932, 2,750 tons.

In the discussion some growers favored the erection of cool stores. Others expressed the contrary view, and supported the stand taken by the directors.

FRUIT TREES. FRUIT TREES.
TO MARKET & PRIVATE GROWERS

Apricots

Get in on these select varieties, available on Apricot or Plum stock. **ELENHEIM, MOOREPARK, NEWCASTLE, OULIN'S, ROYAL, TILTON, TREVATT.**

Pears

Now is the time to plant **EXPORT PEARS**, such as—**BOSC, COMICE, JOSEPHINE, PACKHAM'S, WINTER COLE, and WINTER NELIS.**

Also
BARTLETT (W.B.C.), CLAPP'S FAVORITE, HOWELL, etc., etc.

Strong, healthy, well-grown trees, free from insect pests, carefully packed and promptly despatched anywhere in the World.

Enquiries Invited.

C.J. GOODMAN
PICNIC POINT NURSERIES
BAIRNSDALE Vic. Aust. P.O. Box 47.
(W. McP.)

Pruning of Jonathan Trees.

THERE is everything to be said for medium crops of medium-sized Apples, rather than heavy crops, where the Apples tend to be small. Less handling to fill the same number of cases, and a better price for the fruit, together with a better chance for the trees to mature fruit-buds for the following season.

One of the ways to help in regulating the crop is through the method of pruning. Some years ago photos. were published showing long laterals bearing a number of Apples. Probably this was on account of a tendency with some fruitgrowers to prune Jonathan trees too hard.

Districts no doubt differ; in a district like the Mornington Peninsula, splendid crops of well-colored Jonathan are grown, but the soil in most cases is not rich, and the trees seem to require fairly hard pruning, as well as good cultivation.

Also, in this district, at any rate, there seems to be a tendency for long laterals to "go blind" near the main limbs and bear the Apples some distance from these limbs. In which case many growers consider it advisable to shorten such fruit-bearing laterals, it having been proved that at any rate in most cases they will develop and "spur-up" even where the buds are dormant near the main limbs.

It would be interesting if growers would give their experience on this point, and also as to leaving leaf-bud laterals alone or "tipping" them.

Kyabram.—During the 1932 fruit season 72,136 cases were forwarded from Kyabram railway station—65,154 to Melbourne and 6,982 to Sydney.

EXPORT OF GRAPES.

It was recently stated in a report issued by the Minister for Commerce (Hon. C. A. S. Hawker) that Australia exports about 5 per cent. of its production of table Grapes. During 1931, 63,391 cases, or 707 tons, were shipped. The average annual importation of fresh Grapes into the United Kingdom is 36,227 tons, of which 32,753 tons were obtained from foreign countries (mainly Spain). Great Britain received 3,474 tons from Empire sources—mainly South Africa.

Australian growers are making efforts to develop the Canadian market for fresh Grapes. Canada annually imports from U.S.A. about 11,600 tons of grapes of a value of £286,800. Australian Grapes are admitted free of duty into Canada, as against a duty of 1d. per lb. on Grapes from foreign sources.

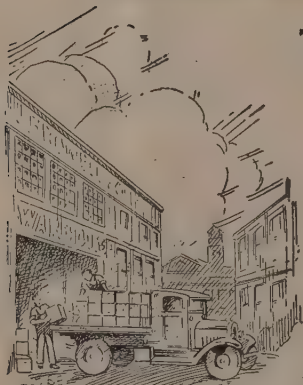
NEPTUNE SPRAYS.

The manufacturers of Neptune spraying materials advise that they have a new line available, known as Neptune "Clarifol." This is a white oil for winter use. Growers are requested not to confuse this spray with the Neptune white spraying oil for summer use, which has been on the market for some considerable time.

Other lines distributed by the Neptune Oil Co. Ltd., who have offices in all States, are:—Prepared spraying oils "A" and "C," lime sulphur solution, spray spreader, Berger's arsenate of lead (paste or powder), black leaf 40, Sicilian sublimed sulphur, Australian powdered sulphur.

Further details regarding these sprays are set out in a booklet which is available free on application to the Neptune Oil Company in all States.

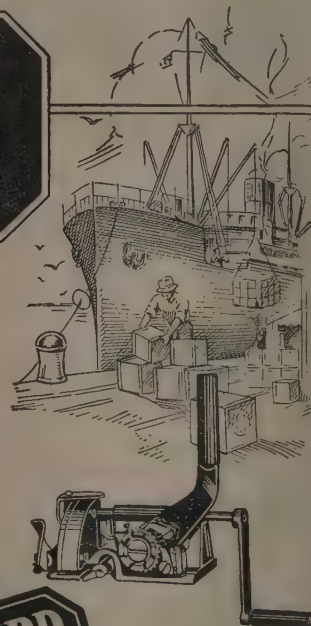
You must deliver
the goods!



THOUGH you sell the best quality of merchandise or produce, advertise it well, display it effectively, and have good men selling it, you do not secure a satisfied customer if safe delivery to the buyer's store or home is not effected.

Gerrard in your packing room ensures safe transport, and safe transport means a satisfied customer—one easy to "sell" on a repeat order.

Wire-seal Strapped for safe and sound delivery.
IT PAYS.



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TOMATO-GROWING COMPETITION.

Enterprise at Portland, Victoria.

TOMATO-GROWING COMPETITIONS at Portland, Victoria, have created much interest. It is understood that this is the only district in Victoria to conduct Tomato-growing competitions.

The following interesting notes are to hand from Mr. Basil Krone, Fruit Packing Expert of the Victorian Department of Agriculture. The winning plot produced about 1,000 cases to the acre.

Plots were judged for—(1) Vigor and growth of foliage, (2) productiveness, (3) freedom from disease, insect pests, broken plants, etc., (4) freedom from weeds, condition of surface soil and subsoil. Out of a possible 100 points, Mr. H. Smith came first with 88 points, closely followed by Bennett Bros. (87), H. Edwards (85), H. V. McLeod (84), Vickerey & Wigley (84). Messrs. Middleton and Dawken scored 77 and A. F. Rigby 70.

Competitions of this kind do much in assisting to raise the standard of production; the plots being visited with interest by beginners and other growers. An annual competition for packing Tomatoes is also held at the local show, the good results of which are gradually being reflected in the marketing of the produce; large quantities being sent to Sydney as well as Melbourne.

The output of Tomatoes during the last seven years has increased from 500 cases per week to 18,000 cases per week, returning to the district approximately £35,000 per annum.

Portland growers pride themselves on their grading and packing, also the quality of their fruit, and rightly so;

indeed, many Portland Tomato packs compare favorably with the very best Apple or citrus packs.

As Tomato packing is more or less a part of the field work (being done in small sheds on the plots), I have, from time to time, had the honor of judging these competitions and therefore offer the following comments:—

In the first instance, even the competitor's block with the lowest number of points in the competition is an excellent advertisement for the district. In addition, there are other plots in the district, not in the competition, that will yield the best part of 1,000 cases to the acre. This may seem a very high yield, but in 1928 more than 500 cases were taken from a third of an acre plot.

Two popular varieties grown in the district are the "Australian Large Red" and "Orange Prolific," commonly known as "Late Red." Other varieties have been tried, but so far none have been so prolific or yielded the weight per acre.

To my mind, it would be a further improvement if these varieties were planted in separate blocks, instead of mixing them as is usual, and make the planting distance for the "Late Red" 6 ft. x 2 ft. 6 in., and 5 ft. x 2 ft. 6 in. for the "Australian Large Red."

The "Late Red" has a very vigorous, upright, as well as a spreading habit, and is inclined to overshadow the "Australian Large Red" when planted together. In addition, the former is much more resistant to wilt and blue top than the latter; therefore if a wet season occurs "blue top" is much more in evidence in the "Australian Large Red," with consequent shortening of the harvesting period for that variety. Dragging picking buckets between the plants which may not be ready to harvest when the others are, also shortens their life.

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HARVESTING OF LEMONS.**Advisability of Storage.**

IN a reference to the good main crop of Lemons now maturing, officers of the Fruit Branch of the N.S.W. Department of Agriculture advise harvesting the most suitable fruit before too mature and putting it in store, in view of the more satisfactory market which will be available in the spring. By suitable fruit is meant that which is green in color and about 2½ or 2⅓ inches in diameter, being well-shaped specimens from normally healthy trees. Provided the Lemons are clipped from the trees and handled carefully, and whilst quite dry, there should be very little loss from blue mould. The only other decays likely to occur during the four months the Lemons are stored are those of the stem end decay type, but these can be greatly minimised by harvesting fruit intended for storing before it begins to "yellow," and as far as possible storing fruit clipped only from leafy twigs.

After the Lemons have been stored for some weeks too free access of air should be prevented, and efforts made to maintain a fairly high degree of humidity in order to guard against excessive wilting and shrinking.

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 Ali Baba means being away when the crime was committed.
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 An active verb shows action, and a passive verb shows passion.
 Matrimony is a place where souls suffer for a time on account of their sins.
 Job had one trouble after another. He lost all his cattle and all his children and then he had to go and live lone with his wife in the desert.

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NEW ZEALAND.—J. A. Redpath & Sons Ltd., 181 Cashel-street, Christchurch, and Branches.

Utilising Waste Apples.

Apple Jelly and Vinegar.

THE PROFITABLE UTILISATION of waste Apples formed the subject of an address by Mr. E. H. Hatfield, at the recent Cool Stores' Conference at Batlow, N.S.W. Mr. Hatfield reported as follows:—

As the utilisation of waste Apples such as windfalls, is a matter of great interest to Apple growers, and, in view of a communication from the Victorian Railway Commissioners re Apple juice and the possibilities of its profitable sale your executive was asked to make investigations.

As I possessed a pulper and press, and was in touch with a Mr. W. Spry, who had had considerable experience in the treatment of Apple juice, cider making, etc., the matter was left to a great extent in my hands. We decided quite early that the prospect of selling cider was very slight, and so our investigation was confined to the use of pure Apple juice. The difficulty that confronted us was that of keeping this product long enough for its disposal without waste. I took the responsibility of having some Apples crushed and the juice pasteurised and asked to test the possibility of its keeping. Some of this has now been stored for two months, and is still quite fresh, 22 gals. A further lot was put down on April 23, 59 gals., but to this was added a pint of sulphurous acid, a preservative which disappears when the juice is exposed and is besides, in such a small quantity that it is quite harmless.

A few bottles were aerated for us by a cordial firm in Melbourne, and Mr. Hocking will give details of interviews which he had with these people.

I had experiments carried out as to the possibility of selling bottled juice as an ordinary grocer's line for the purpose of jelly making by housewives. A good table jelly can be made by heating the juice and pouring it on a little gelatine in a mould, it then sets into a perfect jelly, which has both flavor and nutriment, things which the ordinary commercial lines are deficient in. As a preserve jelly the juice can be brought to the boil, allowed to simmer for 45 min. with sugar added. I am having experiments carried out to see if the usual quantity of sugar can be reduced, so as to do away with over sweetness and expense. Supplying in its place with a small quantity of gelatine, the factor of which we are in ignorance, is the keeping qualities of such a jelly. Time alone can give us the answer. When these experiments are completed, exact details of quantities will be available. The possibilities of selling this product seem to me very promising.

Apple Vinegar.

There is the further product of Apple vinegar, a line much superior to the ordinary vinegar of the shops, especially for salads. This vinegar would be made with the run away, after the first pressing for pure Apple juice had been completed. Costs are estimated by Mr. Spry at 6d. per gallon, this may be above or below actualities, but they could not be checked under the conditions of this season. Mr. Spry estimated also that the juice should sell for 2/- per gallon. This also must be a matter for investigation.

I had one last pressing made as a rough test of commercial possibilities, but the season being as it was, Apples could not be procured at less than 2/6 per case delivered.

Further details were given in the discussion, and the opinion was expressed that the prospects for the commercial success of the enterprise were good.

IMPERIAL FRUIT SHOW.

Birmingham, October 21 to 29.

The Minister for Commerce (Mr. C. A. S. Hawker) desires to announce that his Department has available for distribution copies of the schedules of classes and prizes for the autumn section of the Imperial Fruit Show, which will be held at Bingley Hall, Birmingham, from October 21 to 29.

The attendance at the Exhibition held at Manchester in 1931 was approximately 80,000 in eight days, and every exhibit was a valuable advertisement for Empire fruit.

The various sections in which Dominion growers may compete are:—

Section V.—Overseas Section (Citrus). Open to growers, packing houses, associations of growers, and exporters (five classes).

Section VII.—Canned Produce Section. Open to canners in any part of the British Empire, but all produce shown must have been grown and canned in the British Empire (29 classes).

Section VIII.—Dried Fruits Section. Open to producers and packers in any part of the British Empire (10 classes).

Section IX.—Honey Section. Open to producers in the Dominions and Colonies (3 classes).

Australian exhibitors were very successful at the 1931 Show, at which they secured nearly all the prizes for Peaches, Apricots and Pears in the canned produce section, and also for Currants, Sultanas, Raisins, Apricots, Peaches and Pears in the dried fruits section.

The Committee of the Imperial Fruit Show have expressed their appreciation of the increased number of Australian entries in the dried fruit classes which they considered was very gratifying. They trust that a representative entry in these and other classes will be again forthcoming, as they state there was never a time in the history of Great Britain when organised displays of Empire produce were more likely to interest and influence the consuming public.

Fruitgrowers and others interested may obtain entry forms and copy of the schedule containing full information regarding the classes and other particulars from the Secretary, Department of Commerce, 419 Collins-street, Melbourne.

F. C. Kennett, Sydney.—Mr. F. C. Kennett is established as a licensed farm produce agent, 18 City Markets, Quay-street, Sydney, and also has two well-equipped orchards and vineyards at Glenfield and Narellan. He has won prizes in Grapes and other fruits at the Sydney Royal Show for the past 15 years. A trade has been built up with buyers desiring high quality fruits. The firm's business extends into all the States which supply the City Markets, having made a feature of tropical fruits. Further details are quoted in the advertisement in this issue.

South Australia.

Mid-Murray Notes ∴ Green Manuring ∴ Pruning Competitions ∴ Manurial Methods

GREEN MANURE CROPS have developed during the last month at such a rate that they will be ready to plough under during late June. Mild weather and frequent showers with an almost total absence of frosts marks the rapid development of all winter-growing self-sown clovers, so necessary for supplying our soils with organic matter. When land has been kept free of weeds during the summer it is in good fallow condition for a growth of self-sown weeds during the winter.

Our March special irrigation was availed of by most growers, primarily for the growing of green cover crops, and secondly for retaining leaves for the development of carbo-hydrates in fruiting canes. Within the last few years the Merbein Experimental Farm has been making important investigations into the development of fruitful buds in Sultana vines, which is likely to have an important bearing on the industry generally. A close observation of microscopic work revealed the fact that the fruiting buds for the following year's crop have a definite date of maturity, and in the case of a sudden rush of sap may develop a leaf bud instead of a fruit bud.

During the last summer, conditions were favorable for a development of fruiting buds, which are indicated by many "fall away" laterals on the cane, and there is every prospect, given favorable conditions, of a good crop of Sultanas for next year, where vine canes have not been affected by the January heat wave. In deep soils the vines show up well, but in some shallow soils canes were scorched and became sappy.

PRUNING OPERATIONS commenced generally early in June. Pruning competitions have just been completed in this area, and are carried out through the medium of the Agricultural Bureau and have been the means of definitely raising the standard of work. The lower River Murray areas, comprising Berri, Waikerie, Renmark, Mypolonga, Moorook, compete each year in a championship event. Three of the top competitors from

each district become eligible from each area and the cup is held for the year by the man receiving the highest aggregate marks.

The championship event took place at Waikerie this year, on June 15, so as to coincide with the yearly conference of the River branches of the Agricultural Bureau, held also at Waikerie the following day.

The pruning throughout was of a very high order, and attracted a very large gathering of spectators.

Tree Aggregates.—Points were awarded as follows:—H. M. Perkins, Berri (268); S. Sanders, Moorook (266); A. Wedd, Mypolonga (264); F. Battams, Moorook (263); C. Curtis, Waikerie (260); A. E. Liddicoat, Moorook (259); W. Perry, Waikerie (254); R. Isaacson, Waikerie (254); A. E. Milde, Mypolonga (252); W. M. Hoskin, Berri (245); E. W. Rout, Berri (239). The winner (Mr. H. M. Perkins), gained the Royal A. and H. Society Silver Cup.

Vine Aggregates.—Points were awarded as follows:—C. Boehm, Waikerie (283); C. Curtis, Waikerie (279); L. A. King, Moorook (278); F. G. Fox, Berri (278); A. E. Liddicoat, Moorook (275); G. Elliott, Waikerie (275); H. M. Perkins, Berri (272); S. Sanders, Moorook (271); A. E. Milde, Mypolonga (269); W. M. Hoskin, Berri (267); A. Wedd, Mypolonga (263). Mr. C. Boehm (the winner) gained the silver cup of the Royal Agricultural and Horticultural Society.

In the combined aggregates, Mr. H. M. Perkins, of Berri, won with 540, followed by C. Curtis, Waikerie (539); S. Sanders, Moorook (537); A. E. Liddicoat, Moorook (534); A. Wedd, Mypolonga (527); A. E. Milde, Mypolonga (521), and W. M. Hoskin, Berri (512). The winner gained the Dried Fruits Board Trophy.

THE ANNUAL CONFERENCE of branches of the irrigation areas was held at Waikerie this year, and was opened by Prof. Perkins, Director of Agriculture. Mr. Andrew, chairman of the Waikerie Associa-

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We can also offer some 25,000 Valencia, 10,000 Washington, 2,000 Eureka, 2,000 Marsh, and 2,000 Emperor, grown from buds supplied by the N.S.W. Bud Selection Society. Quantity Prices Freely on Application.

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SPECIALITIES:—Fruit Trees, Rose Plants and Kunde Secateurs.

tion, gave an address of welcome, and the following papers were read:—Mr. Everett, "Drainage Under Irrigation," in which his successful methods were explained; Mr. Ross Johnson, secretary Berri branch, on "How to Make Our Bureau System a Success"; Dr. Nickol, on "Biology"; Dr. Nickol explained the fundamental laws governing biology in such a simple manner as to make the subject extremely interesting. Furthermore, exhorted every grower to study this part of his work as a necessity to successful husbandry. Mr. G. Quinn, Chief Horticultural Instructor, gave a detailed account of experiments with Oranges in determining their sugar content and reactions to acidity. In the evening, Mr. Barlow, chief dairy expert, dealt with cows and pigs as a proposition on irrigation holdings.

The conference was a great success and much information was gained by all those who attended.

* * * * *

Manurial Methods.

MR. A. V. LYON, M.Ag.Sc., who is in charge of the Merbein C.S. and I.R. Research Station, gave an address on manuring before the Block E Agricultural Bureau on Monday, June 14.

In the course of his address, strong emphasis was laid on the necessity of building up our River soils with organic matter, the deficiency being very evident on the result of analysis made from soils right along the Murray Valley, but they must be put in early and ploughed under early. On no account should leguminous crops compete with vines and trees for soil moisture, otherwise the result would prove harmful to the coming crop.

As there was generally a shortage of nitrates immediately after a cover was ploughed under, a dressing of sulphate of ammonia should be given before bud burst. This dressing should be a fairly heavy one, and should be accompanied with superphosphate, as it has been proved that vigorous growth early in the season determined the size of the subsequent bunch and naturally the crop.

We could not increase our fruiting buds on Sultana canes at this time of the year, they were formed last November and early December, but by applying all our artificial fertiliser in one dressing it was in our power

to increase our crops by forcing the growth to produce bigger bunches.

Although many manurial trials had been made with potash, said Mr. Lyon, no results had justified any expenditure in this direction as our soils were rich in potash. The address was much appreciated by all members of the Block E branch and many visitors from the Renmark branch. Mr. R. Fisher, president of the branch, occupied the chair, and was ably assisted in discussions by the secretary, Mr. Jim Pethick. The Block E branch consists of soldier settlers of a fine type who are alive to all experiments in viticultural work.—"Nemo," Renmark, June 20, 1932.

SOUTH AUSTRALIAN FRUIT MARKETING ASSOCIATION.

AT the May meeting of the Executive of the S.A.F.M.A. Inc., Mr. H. J. Bishop presiding, Mr. J. B. Mills (Melbourne) and Mr. E. Johns (Sydney), were welcomed. Mr. Mills stressed the importance of the Ottawa Conference, and answered a number of questions. It was unanimously decided:

"That in view of information now to hand intimating that the amount necessary for sending a delegate to the Ottawa Conference could legally be drawn from the 3/8ths of a penny levy on export fruit we withdraw our opposition to the sending of a direct representative of the industry (subject to the information being confirmed in writing from the Department of Commerce), and endorse and fully support the appointment of Mr. J. B. Mills as the official representative of the industry."

It was further resolved to request Messrs. Colombie and Bailey (as proxies for the S.A. delegates), to convey the resolution officially to the Apple and Pear Export Council.

Pear Shipments.—The President said that the clause that had to be signed by shippers of Pears by the "City of Dieppe," indemnifying the shipping companies against responsibility should the Pears not turn out satisfactorily at destination, was unfair, and had been signed under protest.

Members stated that serious loss was occasioned through insufficient Pear space being available, and it was considered that Pear shippers had been unfairly treated.

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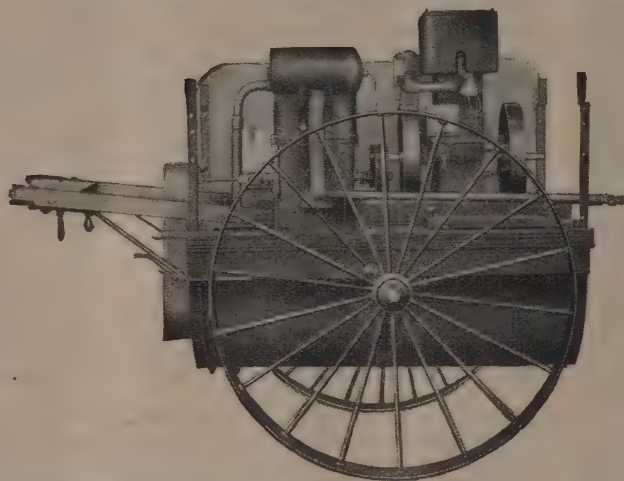
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The Unanimous Opinion of all Fruitgrowers who have inspected



"The Buzacott" Fig 469 Portable Orchard Sprayer.

*It is Truly a Masterpiece of
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FOR AUSTRALIANS.**

1. High Pressure Spray Pump, totally enclosed—All working parts run in oil.
2. Equipped with a $1\frac{1}{2}$ h.p. totally enclosed "Buzacott" vertical Engine—an extremely simple and compact power unit.

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Quality Trees and Roses, efficient packing and prompt dispatch of all orders.

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Codlin Moth.—Mr. Wicks reported that the research sub-committee had submitted comprehensive reports; the results were very valuable and were being tabulated in a chart.

Handling of Fruit.—It was decided to write to the shipping companies appreciating improved handling and stowage methods. Mr. Quinn and his officers were also cordially thanked.

The resignation of Mr. A. Filsell was received, and it was resolved to ask him to reconsider the matter.

Mr. H. J. Bishop was granted leave of absence for three months and Mr. J. B. Randell was appointed acting chairman.

A meeting of the Executive of the S.A.F.M.A. was held at Adelaide on June 24. There were present:—Messrs. J. B. Randell (acting Chairman), J. S. Hammat, D. W. Hannaford, F. B. James, R. O. Knappstein, G. Mack, A. O. Peterson, R. B. Pritchard, J. B. Randell, P. R. B. Searcy, G. W. Selth, H. N. Wicks, R. Willmore, and Secretary.

Interstate Fruit Trade.—A letter was received from Mr. H. J. Bishop, from Sydney, stating he was astonished at the rough and unsatisfactory manner in which fruit was handled in Sydney, and asking that a copy of the South Australian Act, dealing with rough handling be sent to the N.S.W. Fruit and Vegetable Association. Mr. F. B. James confirmed Mr. Bishop's statement, and requested that a copy of the Association's rules be forwarded to Mr. J. J. Jenkins. It was resolved to do everything to assist the N.S.W. Associations to obtain the necessary authority for enforcing regulations to improve the handling of fruit.

It was decided to form a freight committee for receiving space applications and to make allotments. Regarding light-weight cases, a sub committee consisting of Messrs. G. W. Selth, R. Willmore, F. B. James, and D. W. Hannaford, be appointed to report on the matter of complaints re light-weight cases of Apples.

Ottawa Conference.—The Chairman explained the position in regard to the delegate to the Ottawa Conference. A large amount of correspondence was received from Mr. H. G. Colombie and Mr. J. W. Bailey, also a letter from the Secretary, Australian Apple and Pear Export Council enclosing the letter from the Commerce Department dated May 27. It was resolved to take no further steps in the matter unless further information is received in the future, which makes it desirable to reopen.

Thrips investigation.—The Chairman reported that Mr. H. N. Wicks had arranged a meeting in regard to the thrips investigation to be held in the Way Hall, Pitt-street, off Franklin-street, Adelaide, on Friday, July 22, at 3 p.m. Dr. Davidson, of the Waite Institute, would address the meeting.

NEW SOUTH WALES.

Batlow.—During May at the Batlow cool stores and packing house, Granny Smith Apples were graded, sized, wrapped in oiled wraps, and placed in cool stores.

Jonathans have been cleaned up, as it has been found that the large sizes in particular have been going "sleepy" this season. In general, none of the fruit has been keeping as well as in a normal season.

The Batlow fruitgrowers have all been enthusiastic regarding the visit of the Victorian delegates to the Cool Stores' Conference: all appreciated the attendance of so many growers.

Publicity Assists Orange Sales.—The Murrumbidgee irrigation areas were visited by a press delegation from Sydney in mid-June, to obtain first-hand information for publication to assist in disposing of the Orange crop. Much valuable information was gleaned and published. The Griffith Producers' Co-operative Citrus Packing House was admired.

Leeton.—The Leeton Producers' Rural Co-operative Society Ltd. was registered on March 7, this development being necessary because of the trading activities which had been commenced in supplying cases, manures, and orchard requisites to growers.

UNLICENSED SYDNEY AGENT FINED.

CLARENCE GEORGE WATT, of Howley-street, Five-dock, Sydney, was charged at the Central Summons Court, Sydney on May 24, with having acted as a farm produce agent in the Sydney Municipal Markets, without being licensed under the Farm Produce Agents Act, 1926.

John Burrows, inspector, said that he told Watt, on April 1, that the Department had received many complaints about him from fruitgrowers in Queensland. Witness questioned Watt about several consignments of fruit, which had been split with other agents, the difference in prices having been as much as 14/- a case. Watt said that he had received low prices, but that he could not prove these prices, because he did not keep books.

Watt said that he had been a fruit merchant, and not a farm produce agent. He had bought and sold fruit at his own risk, and had never represented himself as a farm produce agent.

Mr. J. R. Butler (for the prosecution) pressed for a heavy penalty. He stated that the Department of Agriculture had received more complaints against Watt than against all the other agents in the markets.

Watt was fined £10, with 8/- costs, in default 21 days' imprisonment.

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SULPHATE OF AMMONIA

REDUCTION OF PRICE

As from the 1st July, the price of Sulphate of Ammonia was reduced to the lowest level on record in Australia, and £2/8/6 per ton below the ruling price this time last year.

Price now **£11/8/6** per ton,
less 2½% for cash (in ton lots and over).

Higher rates for cwt. orders.

SULPHATE OF AMMONIA remains the cheapest and most profitable nitrogen fertiliser that can be used—either “straight,” in **SUPER** and **AMMONIA** mixtures, or in complete manures.

Ask your Fertiliser Agent to order for you at the above low price, and reduce crop costs by increasing acre yields.

Write for Fertiliser Recommendations to:

NITROGEN FERTILISERS PTY. LTD.
360 Collins Street, Melbourne, C.1.

FRUITERER FINED.

George McKenzie, fruiterer, Maynard-street, Preston, Victoria, was fined £3, with £3/3/- costs, at the Northcote Court on June 7 for having tipped decayed fruit near Summer-avenue, near St. George's road, Northcote, on May 7.

For some time past rotten fruit and vegetables have been tipped in this roadway, to the annoyance of neighbors.

NEW SPRAY SYSTEMS.

Satisfactory tests of three improved spray irrigation systems were made at the Albert cricket ground. The systems, which have been patented by Mr. E. C. Brickhill, of the Gay Sprinkler Agency Co., and under test showed excellent qualities. It was shown that the systems could be used with low pressure, that they would cover a large area, and that they would spread even rain sprays in squared areas, obviating overlapping which occurred in ordinary rotating sprays. It is claimed also that the sprays had many advantages over channels for irrigation of citrus trees, and tobacco and vegetable crops.

GEO. LISTER IN HARNESS AGAIN.

Mr. George Lister, who founded the firm of Geo. Lister Pty. Ltd., wholesale fruit merchants, in Melbourne, half a century ago, is back again on the board of the firm. Mr. Lister retired from active business 22 years ago, but age does not seem to have impaired his active brain, and despite his more than three score and ten years, the fruit trade calls again. Mr. Lister will find many changes in the firms that competed with him in the old Western Market days.

A. E. Schuster, Sydney.—The firm of A. E. Schuster is established as a growers' agent at 416 Quay-street, City Markets, Sydney. The firm has also been established in Brisbane for the past 14 years. During a period of business extension, Mr. Schuster entered into a five years' partnership with Mr. A. J. Carter. About two years ago an empty store in Quay-street was purchased, and the business is now being conducted as a licensed farm produce agent handling fruit from the leading districts in Victoria, New South Wales, Tasmania, and Queensland. Stencils are supplied on application, and all inquiries regarding market conditions are readily answered. Mr. Schuster is soliciting additional business, and further particulars are given in the advertisement in this issue.

The Fruit Trade

Market Reports and News Items

REPRESENTATIVE FIRMS, FRUIT MERCHANTS, AGENTS, EXPORTERS.

Advertising in this Journal.

Sydney:

Chilton, F., City Fruit Markets.
Slater, Jas., City Fruit Markets.

Melbourne:

VICTORIA.

Bell, Banson Pty. Ltd., Wholesale Fruit Market.
Cave, F. & Co. Pty. Ltd., Wholesale Fruit Market.
Davis, J., Pty. Ltd., Wholesale Fruit Market.
Frankel, H. & S., Wholesale Fruit Market.
Lister, G., Pty. Ltd., Wholesale Fruit Market.
Lucas, D. S., 132 Franklin Street, Melbourne.
Millis, A., & Sons, Wholesale Fruit Market.
McLean, N. N., Pty. Ltd.
Mumford, J. G., Wholesale Fruit Market.
Pang & Co. Ltd., H. L., Wholesale Fruit Market.
Patrikeos, P. A., Wholesale Fruit Market.
Producers' Dist. Society, Wholesale Fruit Market.
Ross, J. W., Wholesale Fruit Market.
Sang Goon & Co., Wholesale Fruit Market.
Silbert, Sharp & Davies, Wholesale Fruit Market.
Stott & Sons, T., Wholesale Fruit Market.
Tim Young & Co. Pty. Ltd., Wholesale Fruit Market.
Tong, W. S., Wholesale Fruit Market.
Wade, H. M., & Co., Wholesale Fruit Market.
Wilson, H., Pty. Ltd., Wholesale Fruit Market.
Wing, R. A., & Co., Wholesale Fruit Market.
Wing, Young & Co., Wholesale Fruit Market.
Woolf, G., Wholesale Fruit Market.
Wholesale Fruit Merchants' Assn., J. D. Fraser, Temple Court, 428 Collins Street, Melbourne.
Young, J. H., & Co. Pty., Wholesale Fruit Market.

GREAT BRITAIN AND CONTINENT.

Major H. Dakin, fruit exporter, Sydney, advises on June 27, that the following cable message was received from Messrs. Geo. Monro Ltd.:—"Apple trade bad, general prices, Sturmers 6/-, 8/-; Cleos., Pears, 6/-, 7/6; French Crabs, 6/-, 7/-; Jons., 7/-, 9/-; Grannys, 11/-, 14/-. Liverpool report "Canonesa," "Navasota" bad condition, "Mongolia" ripe, "Argyllshire" now unloading bad condition.

London.—A circular (dated May 18, 1932), has been received from Messrs. J. C. Houghton & Co., of 1 Temple Court, London, England, giving details of sale of Australian and Tasmanian Apples, ex the "Ceramic." The report states that up to the present the cargo is turning out quite satisfactorily and a good steady demand was experienced for all descriptions. Here and there Jons. showed good color, and some nice Cleos. were included in the consignment. Prices:—Victorian: Jon., 10/-, 12/6; Cleo., 10/9, 12/-; Dunn, 11/-, 12/-. West Australian: Cleo., 10/9, 12/9; Jon., 11/-, 12/6. Tasmanian: R.P., 9/-, 9/9; Cleo., 9/3, 12/-; N.Y.P., 9/-, 11/-; C.O.P., 9/-, 13/3.

In a weekly market report dated May 20, 1932, from Messrs. T. J. Poupart Ltd., Covent Garden Market, London, W.C.2, the following prices are quoted:—

Peaches, 4/- to 24/- per dozen; Nectarines, 8/- to 24/- per dozen; forced Strawberries, best 5/- to 8/-, seconds 3/- to 4/- per lb; Grapes, Hambro 1/6 to 3/6, Muscat, 4/- to 6/- per lb.

Denmark.—The International Fruit Import A/s., Copenhagen, Denmark, report under date May 21, 1932, as follows:—This week about 4,000 cases of Australian Apples have been sold at the following prices:—South Australian: Jons., 14/9 to 16/1; Dunns, 14/6 to 15/4;

Brisbane:

Barr, A. S., Fruit Exchange.
Collard & Mackay, Fruit Exchange.
Comino Bros. Ltd., Fruit Exchange.
Cooksley & Co., Fruit Exchange.
Geeves, H. V., Fruit Exchange.
Robsons Ltd., Fruit Exchange.
Whitton, W. J., & Co., Fruit Markets.

Hobart:

Eric Burgess Pty. Ltd., 83 Collins Street, Hobart.
El. R. Cottier Pty. Ltd., Temple Place, Macquarie Street
Jones, H., Co. Ltd., Fruit Exporters.
Peacock, W. D., & Co., Fruit Exporters, and at London.

Launceston:

Bender & Co. Pty. Ltd., 100 Elizabeth Street.

Dunedin:

Co-operative Fruitgrowers of Otago Ltd.

London:

GREAT BRITAIN.

Pask, Cornish and Smart, London.
Margetson & Co. Ltd., Covent Garden.
Monro, Geo., Ltd., Covent Garden.
Poupart, T. J., Ltd., Covent Garden.
Ridley, Houlding & Co., Covent Garden.
White & Son Ltd., London Fruit Exchange, Spitalfields, E.1.

Hull:

The Port of Hull, London and N.E. Railway. Rep. Burns Philp & Co. Ltd., 7 Bridge Street, Sydney.

Manchester:

The Port of Manchester Rep., W. J. Wade, 8 Bridge Street, Sydney.

Liverpool:

Johnson, T. S., & Co.

Bremen:

GERMANY.

Fruchthandel, Gesellschaft.

Hamburg:

Asthelmer, P. H., & Son, Fruchthof.
Gustav Bey, Hamburg.
Int. Fruit Import Gesellschaft.
Lutten, J. H., & Sohn, Hamburg.
Stier, Aug., Fruchthof.
Timm & Gerstenkorn.

Copenhagen:

DENMARK.

International Fruit Import Co.

Cleos., 14/2 to 15/10; Stone Pippins, 13/8 to 14/2; Rome Beauties, 14/6 to 14/9. West Australian: Jons., 14/9 to 15/7; Cleos., 15/-, Tasmanian: Jons., 15/- to 15/7; Cleos., 15/10 to 16/1; Alf., 14/2. On account of the small supplies and the continued strong demand, an improvement in the market has taken place, and all offerings were easily cleared at above prices.

New South Wales.

Sydney (24/6/32).—Apples—Dessert: Local, 5/- to 10/-; G. Smith, 10/- to 15/-; interstate, Del. 4/- to 10/-, Jons. 4/- to 8/-, S.P.M. 3/- to 7/-, F.C. 3/- to 8/-, others 3/- to 7/- a bushel; good inquiry for choice; inferior unsaleable. Bananas—Nines to 22/-, eights to 22/-, sevens to 20/-, sixes 12/- to 16/- case; fresh supplied received; green were hard to sell, but a few choice colored sold to 24/-. Grapefruit, 4/- to 7/- a bushel. Custard Apples, 2/- to 4/- half-case. Lemons—Local 3/- to 6/- a bushel; dull inquiry. Oranges—Navels 4/- to 6/-, Common 3/- to 4/- bushel case; good inquiry for large Navels; others slow. Passionfruit, 7/- to 13/- a half-bushel; prices slightly higher. Papaws, 5/- to 14/- a case; colored steady, but most are green and unsaleable. Pears—Dessert 4/- to 12/-, cookers 4/- to 7/- half-case; good inquiry for choice. Mandarins—Thorney 2/- to 4/- half-case; Emperors 3/- to 6/- bushel. Pineapples, 8/- to 12/- a case; steady sale for colored only; green not wanted.

Victoria.

Melbourne (25/6/32).—The Wholesale Fruit Merchants' Association reports as follows:—Trade quiet. Bananas and Pineapples, slightly easier. Except where otherwise stated, the quotations are at per bushel case:—Apples—Eating, Jons. 5/- to 7/-, Del. 6/- to 9/-; cooking, Five

Crowns 5/- to 7/-, G. Smiths 8/- to 10/-. Custard Apples, 4/- to 6/- half case. Oranges—Thompson's Navels: N.S.W. and Vic., average standards, 126 up, 6/-; good S. Aus. and Mildura wrapped standards, to 8/- best counts; a few selected wrapped S. Aus. standards, to 9/-; Commons: standards, 5/-; plain, 4/-. Mandarins—Standard grade, N.S.W. and Vic., best counts (180-224) to 7/-, smalls (from 288) from 4/-; few selected mature S. Aus. and Vic. lines, 8/- best counts. Vic. Grapefruit, average standard grade, best counts to 8/-, few selected grades to 9/-. Lemons, average standard, 180-248, 6/-. Strawberries, 10d. to 1/3 a punnet. Pears—Culinary, 2/6 to 4/-; dessert, Packham and B. Bosc., 6/- to 8/-. Bananas—Queensland (green), 6's, 12/- to 14/-; 7's, 15/- to 17/-; 9's and 8's, 17/- to 19/-. Pineapples, 8/- to 10/-. Passion Fruit, 10/- to 12/-. Tomatoes—Queensland, 8/- to 10/-; glasshouse, Victorian, 10/- to 12/-.

Queensland.

Brisbane (25/6/32).—Local fruit: Pineapples, smooth leaf, 3/- to 5/- case; rough leaf, 2/- to 3/6; Passion Fruit No. 1 quality, 5/- to 7/-; No. 2 quality, 2/- to 4/-; Apples, 9/6 to 11/- bushel case; Oranges, 3/- to 3/6, few 4/-; Navels, 3/- to 6/-; Flaxton lines, 5/- to 6/-, few 7/-; Benyenda, 8/- to 10/-; Lemons, local 3/6 to 7/- bush. case; Benyenda, 11/- to 13/-; Gayndah, 10/- to 11/-; Custard Apples, 1/6 to 3/-; Mandarins, Emperors, 3/- to 5/-; Scarlets, 3/- to 6/-; Glens, 5/- to 8/-; Benyenda, 7/- to 10/-; Gayndah, 5/- to 8/-; Papaws, 1/- to 2/6 bushel case; Yarwun, 6/- to 8/- a one and a-half bush. case. Imported fruit: Apples, Jons., 9/- to 10/-; N.Y.P., 7/- to 9/-; F.C., 7/- to 8/-; Demos, 10/- to 11/-; S.P.M., 8/- to 9/-; Pears, B.C., 9/- to 11/-; Jos., 8/- to 12/-; Howells, 8/- to 10/-; Oranges, Navels, 5/- to 7/-; Excells, 8/-.

Western Australia.

Perth (17/6/32).—Apples, Jons., dumps, 6/- to 11/- (special to 13/-); Dunn's, 6/- to 8/- (others from 4/6); R. Beauty, 5/- to 8/-; Yates, 5/- to 9/- (special to 10/6, others from 3/6); G. Smith, 7/- to 11/-; Cleo., 5/- to 8/- (others from 3/6); Doherty, 4/- to 7/6; Rokewood, 4/- to 6/6; Citrus: Navels, flats, 2/6 to 4/6 (special to 5/6, others from 1/6); dumps, 4/- to 7/- (others from 1/6); dumps, 4/- to 7/- (others from 3/-); Lemons, 1/6 to 4/- (special to 5/-); Mandarins, sweet, 6/- to 10/-; others, 2/6 to 6/-; dumps, 5/- to 10/- (others from 3/-).

New Zealand.

Dunedin (16/6/32).—Messrs. Reilly's Central Produce Mart Ltd., report as follows:—Apples, Jons., 4/-, 5/6; Del., 5/-, 7/6; Alf., Lord Wolsley, choice large cookers, 3/6, 5/-. Pears, W. Coles, 5/-, 7/-; W. Nelis, 6/-, 7/-; P. Barry, 6/-. Persimmons, 5/-, 6/-. Mandarines, choice, 10/-, 16/6; small, 4/-, 7/6. Pines, 22/6. Island Oranges, 12/-, 14/-; Cali. Oranges, 40/-; Sunbeam Navels, 12/6, 14/6. Australian Grapefruit, 15/-. Cali. Lemons, 47/6; N.Z., 10/-, 15/-; Australian, 16/-, 18/-. Bananas, choice ripe nines, 17/-; green, 14/-.

Mr. F. Chilton, fruit commission agent, of the City Fruit Markets, Sydney, N.S.W., assures growers of highest market prices, prompt returns and reliable advice. This firm was established in 1894, and is licensed under the Farm Produce Agents Act.

MELBOURNE & METROPOLITAN RETAIL FRUITERERS' ASSOCIATION.

The first meeting of the new Executive of the Melbourne and Metropolitan Retail Fruiterers' Association was held on June 2, and there was a full attendance of delegates. The new delegates were warmly welcomed by the chairman, Mr. J. L. Brown. The election of officers resulted as follows:—President, Mr. A. E. Miller; Vice-President, Mr. E. King; Treasurer, Mr. C. Mawdsley; Trustees, Messrs. J. L. Brown, E. King and W. Lewin. Mr. W. Grant duly installed the newly-elected officers into their positions, and each responded and stated they would do their best to uphold the dignity of the Association.

Mr. Brown, in vacating the chair, also thanked the delegates for the assistance given him during his term of office in carrying out the work of the Association, and stated that although not an executive officer, he would still be an active worker in the interests of the Association.

The Secretary is Mr. E. W. Thompson, 32 Mills-street, Albert Park, Vic.

* * * * *

Selling Fruit by Number Instead of by Weight Approved.

The annual meeting of the Melbourne and Metropolitan Retail Fruiterers' Association was held on May 26. The annual report and balance-sheet which were adopted, showed that despite the financial depression, the Association had a very successful year. The Secretary and Auditors were re-elected, and Messrs. H. Holloway and S. Aston, were elected to the Executive. During the meeting a presentation was made to the retiring President, Mr. J. L. Brown, and gratefully acknowledged.

Some discussion took place in reference to an alteration in the manner of selling large fruits, such as Apples, Pears, Quinces, etc., by number instead of by weight, and a resolution was carried unanimously favoring the alteration, and the Secretary was instructed to forward the resolution on to the Agricultural Department requesting such regulations as necessary be brought into force.

The Secretary also stated it was quite possible regulations would be drafted to ensure all berry fruit for jam being placed on the market in uniform containers in the near future.

GROWERS!

Consign your Fruit to:—

JAMES SLATER

21 City Markets, Sydney

Postal Address: Box 36, Haymarket P.O., Sydney.
Established 1882.

Bank Reference: Commercial Banking Co., of Sydney, Haymarket.

Specialist in Strawberries and all other Choice Fruits.

All Victorian Fruits and Nuts handled to best advantage on the Sydney Market.

Shipping No. 19 88 Vic. & Tas.

See Paragraph, Page 209.

Stencils, Advice Notes, etc., on Application.

CITRUS CROP IN SOUTH AUSTRALIA.

THE ORANGE CROP in the irrigated areas of the Murray Valley in this State, when taken as a whole, is turning out to be more abundant than was formerly anticipated, states Mr. Geo. Quinn, Chief Horticultural Instructor.

Continuing, Mr. Quinn advises that the fruit is ripening nicely into good color, but the size is distinctly smaller than usual. This must affect the total cases packed for market, though most of the fruit should prove quite suitable for trade purposes, as during most seasons there is a tendency to produce a preponderance of large fruits.

The general opinion is that the extreme heat of January last was the cause of the Oranges failing to develop to their ordinary sizes.

The gross yield should not prove more than 20 to 25 per cent. less than was harvested last season, which proved a year of exceptionally large crops. Other kinds of citrus are grown only sparingly on the irrigated areas in South Australia.

Mandarins are losing favor with most growers, owing to the poor prices generally receivable of late years.

Lemons are grown to a lesser extent than twenty-five years ago, and growers have not become convinced that Pomelos are worth planting on a larger scale.

In the coastal areas, the Orange crop is quite a reasonably good one, more particularly as the trees in many plantations have not yet fully recovered from the three years drought which preceded last year's good rainfall.

The quality of the fruit appears to be quite up to the usual standard. The ordinary seed-bearing varieties preponderate in these coastal orangeries, and some good types of fruit are to be found this season. The acidity

tests conducted by this Department show the Navels to be quite within the standards set up in the Eastern States, but the ordinary non-navel sorts are yet displaying a considerable excess above the standards of tolerance of acids.

The Lemon crop is fair, but this fruit is not grown as largely as in other States owing to the extreme fluctuations in prices obtainable.

"POULTRY WORLD" FOR JULY.

The July issue of the "Australasian Poultry World," which is now on sale, contains 72 pages crammed from cover to cover with valuable information and hints on all branches of poultry breeding. Amongst the special features of the issue are articles dealing with the overhaul and management of incubators, the food requirements of poultry, hints on the selection of breeding stock, and methods of feeding ducks and rearing goslings. Regular topics include Bantam, Pigeon, and Aviary Notes, Show Reports and Awards, Interstate News and Egg-laying Competition scores, a handy Monthly Egg Recorder and a description of farms with illustrations. The issue is brightly written to interest the man on the land, is well illustrated, and it should be in the hands of every orchardist who keeps fowls either as a side-line or for his own domestic use. Copies are obtainable at 6d. from newsagents in all States, or direct from the Horticultural Press Pty. Ltd., Box 1944, G.P.O., Melbourne, or at 439 Kent-street, Sydney. The annual subscription is 6/- per annum posted.

Hope is a simple word, but it helps a man to conquer many an obstacle and changes defeat into victory.

Keep your courage up and it will keep you up.

New South Wales Bud Selection Society's Buds . . .

In 1931 we purchased from the Bud Selection Society eight thousand buds of Valencia Late Orange and Washington Navel Orange, Emperor Mandarin, Eureka Lemon, Marsh Grape Fruit.

Trees from these buds are now ready to plant.

They are strong, well-rooted trees—will carry anywhere.

If you have the space, put a line of these alongside those you already have and watch results—it is worth while.

Catalogue Post Free.

Phone Ryde 70

Thos. Adamson
Rosea Nursery
ERMINGTON N.S.W.

LION BRAND.



All sprays will be manufactured from the same formulae as previously used by Mr. S. R. Bushnell whilst associated with Jaques Pty. Ltd. Orchardists can therefore rely upon getting the best quality fruit sprays.

Write for prices and particulars to:

ORCHARD SPRAYS PTY. LTD., 549-51 Church Street, Richmond, Victoria, or—
CAMERON, SUTHERLAND & SEWARD PTY. LTD., Riverside Avenue, Sth. Melb., Vic.

Orchard Sprays

We manufacture a complete range of sprays for the orchardist, including:

ARSENATE OF LEAD (PASTE)
ARSENATE OF LEAD (POWDER)
LIME SULPHUR
WHITE OIL EMULSION
PREPARED RED OIL
BORDEAUX MIXTURE
BORDEAUX COMPOUND
SPREADERS (SPECIAL)
CASEINATE
SPREADER (ORDINARY)
CALCIUM CASEINATE, ETC., ETC.

CITRUS DECIDUOUS FRUIT TREES

We are Now Booking for 1932.

OUR TREES ARE TRULY
"PEDIGREE"

LIMITED QUANTITIES OF TREES TO OFFER
RAISED FROM CITRUS BUD SELECTION
COMMITTEE'S WOOD.

Get Our Prices Before Buying Elsewhere
Catalogues Correspondence
Gratis. Invited.

QUALITY VERY PRIME FOR 1932

F. FERGUSON & SON,
Australian Nurseries,
Hurstville - - New South Wales

Also at
Camden.

Established
1848.



No. 9 Spraying Machine

The Most Extensive
Manufacturers in the
British Empire of

RUBBER STAMPS

Stencils, Marking Devices,
Inks & Acme Stamp Pads

We make a Big Range of Special
Fruit Case Marking Sets

We also Manufacture and Supply
Spraying Machines
for All Purposes

Let us know your requirements, and we will
quote you. Ask for Spraying Equipment Price List

Excelsior Supply Co. Ltd.

160 George St. West 278 Post Office Place
SYDNEY, N.S.W. MELBOURNE, VIC.
86 Manners St., WELLINGTON, N.Z.

DRIED VINE FRUIT PRODUCTION.

Growers Oppose Extension.

Dried fruit producers at Coomealla, N.S.W., have issued a protest against the statement alleged to have been made by Mr. P. McGirr, Chairman of the Western Lands Board, advocating the extension of dried fruitgrowing as a step towards solving the unemployment problem. Growers firmly insist that this matter should first be discussed with the established Dried Fruits Boards.

AUSTRALIAN DRIED FRUITS SALES IN GREAT BRITAIN.

The Commonwealth Dried Fruits Export Control Board report that sales of Australian Dried Fruits in Great Britain as recorded with the London Agency of the Board during the week ended June 16, amounted to 1,108 tons, valued at £66,970.

Included in these figures were 762 tons of Sultanas, averaging £65/2/7 per ton, and 346 tons of Currants at an average of £50/7/- per ton.

The demand continues steady and the offtake is regarded by the Board as satisfactory.

Owing to the improved position of the dried fruits industry, there has been an increased demand for horticultural blocks in Mildura. Local fruit producers are increasing their holdings.

At Red Cliffs, values of dried fruit blocks have increased. One block was recently sold for £210 per acre.

Harcourt.—Local fruitgrowers have agreed to the suggestion of the Water Supply Commission that they tender at as low a figure as possible for the cleaning out of the worst parts of the irrigation channel, in order that the Commission may cement the channel, utilising unemployed relief funds.

ORANGES FOR U.K.

The Empire Marketing Board states that the prospects of Orange shipments of the Union of South Africa are slightly better than last year. Estimated exports—1,700,000 boxes, Rhodesia 141,000 boxes. Owing to difficult economic conditions of the Continent, it was estimated that there would be no effective outlet for South African fruit there. Their Navel Orange crop is reported to be light, Valencias good.

Brazil shipments indicate movement—perhaps slightly below last year's exports, but greatly exceeding any other year, owing to crops being harvested from the increased bearing acreage.

It is suggested that Australia may use Canada as an outlet for her surplus.

The foregoing was cabled by Mr. Motz, U.S.A. fruit specialist, London, on April 28, for the weekly market report issued by U.S. Department of Agriculture.

Citrus Packing.—The Lightning Fruit Grader Company are now featuring a special citrus grader which they claim is ahead of anything yet produced for accurate sizing and standardised counts. The main points of this machine are greater number of sizes, larger bins, and one bin for every count; a special roller is fitted to the small models, and for the larger packs, a new type of roller with each section, independent of the others, is used.

Poultry Notes.

Rearing Goslings.

Goslings are very hardy and should not be pampered in any way. When 24 hours old, they may be put out with their mother in a roomy coop or small run, on a patch of grass or other short greenstuff, care being taken that they are protected from sun and damp. Like ducklings and chickens, goslings do not require any food for the first 36-48 hours, and their first feed may consist of equal parts by weight of bran, pollard and maize meal. This should be moistened, preferably with milk, into a crumbly mash and lightly sprinkled with clean sand, and is best fed in a shallow receptacle. For the first three to four weeks, three feeds a day are necessary and, afterwards, if there is ample grazing in the form of green grass or other succulent crop, one feed a day will be sufficient. If the birds are to be marketed at an early age, they should be fed more frequently; in such event, soft-boiled kitchen scraps and vegetables will make a wholesome addition to the mash, and reduce the food bill considerably.

Goslings should not be allowed to swim until they are completely feathered, as they are apt to catch a chill and the exercise of swimming retards their growth. Up to this age, they should be allowed water not deeper than will enable them to cover their heads.

If the birds have been running on good, succulent pasture, which has been supplemented with two feeds a day,

You Want More Eggs? Then Use Karswood



If you want more eggs, follow the wise lead of thousands of poultry-keepers in every corner of the Commonwealth. Never let a day pass without mixing a ration of Karswood Poultry Spice into the evening mash. Karswood is a natural tonic-stimulant. Its ingredients are those which Nature decreed hens must have if they are to be kept in perfect laying condition. That is why the action of Karswood is so healthful and natural.....why it does not force the birds in any way.

Try Karswood on your own layers. Any grocer, wholesaler or store can supply it in convenient quantities.

Read this letter:

Dear Sir: I have great pleasure in telling you my record of eggs since I started with fowls on the 22nd July with Chinese Langshans. From the 22nd July till 1st October, they laid six dozen and ten eggs, besides going broody twice. This I think is a good average from 2 pullets. I also took first prize with one pullet in the Parkes Show.

Yours sincerely,

Parkes,
October 1st, 1931.

(Sgd.) A. Klein.

KARSWOOD
POULTRY SPICE

Increases egg-production without forcing.

Giving Complete Satisfaction in All Parts of Australia.

The "BAVE-U" Power Sprayer

Hundreds of unsolicited tributes to the efficiency and economy of the Bave-U Sprayer have been sent to us. Of these we have selected five for your perusal. The Bave-U

possesses the fullest confidence of the fruit-grower—you can't go wrong in selecting a machine which has proved its durability and efficiency over many years.

From John Petty, Doncaster, Victoria:

I have used the Bave-U Sprayer for 23 years. Mine was the second power sprayer in Victoria. The outfit has always given, and is still giving every satisfaction. Personally, I feel that this is the best spraying outfit on the market.

There is no Wiser
Investment than a
Bave-U Sprayer

From H. G. Harris, Farm 337, Leeton, N.S.W.

I must tell you how pleased I am with your Machine. I think your new release valve is perfect. I am using two Spray guns at 300 to 350 lbs. pressure and the pressure hardly varies. My Machine has done on an average 24,000 gallons per Year, the work of about 30 Farms. I think it is worth its weight in gold.

From E. Stocks, Drouin, Victoria:

The Pump is doing splendid work. The agitator keeps the lead well suspended, and the force drives the Spray right through the foliage, which, in a light season is extra thick.

From Estate J. Hawter Orchards, Mullalyup, West Australia:

The first Pump which we purchased from you in 1912 is still going very well. Just before starting this season's Spraying, I had some minor repairs done and the Engine is now going as well as new.

From E. G. Hammerling, Nuriootpa, South Australia:

The Bave-U Sprayer is still in good working order, she has worked very well throughout the season without any trouble.



The Patent Suction Pipe Strainer on all models of the Bave-U is declared by many to be "worth its weight in gold." It is fitted outside the vat, between the vat and the pump; it is thus easily cleaned, and being made of copper, will not rust.

The Agitator thoroughly stirs the mixture all the time. For spraying with Oil, Bordeaux Mixture or Arsenate of Lead there is nothing so efficient and the mixture towards the end of barrel is of the same consistency as at the beginning.

The Pump is smooth and simple in working, the engine is solidly constructed to give long service without interruption—in fact, every part of the Bave-U is made to do the job, to do it quickly, to do it properly.

In the Bave-U Duplex Sprayer (illustrated above), two pumps working side by side give a perfectly steady spray at any pressure desired; 2 or 4 wheeled transport.

The Bave-U Tractor Sprayer is used for vines, etc. Power is obtained from the wheels of the transport while in motion. It can be changed into a power sprayer at any time by adding the engine.

The Bave-U Hand Sprayer (illustrated below) is made in all suitable sizes. It is a first-class hand machine and gives excellent service.

Bave-U Sprayers are Australian made. Special reductions have been made on all our lines. They represent by far the best value on the market.

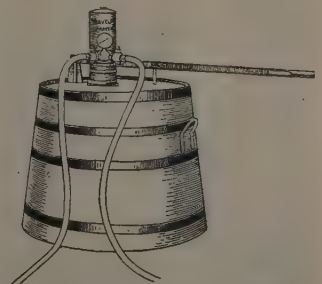
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they are usually fit for the market at the age of three months.

It pays to top the birds off before marketing them. During this process, which takes from eight to ten days, they should be limited in run to a shed or small pen, and there fed liberally on wet mash three times a day.

Equal parts by weight of bran, maize meal, and ground oats or barley meal, moistened with milk, is a suitable ration. Boiled potatoes, and chopped mangels, turnips, etc., are excellent to mix with the mash. Drinking water and grit should always be within reach of the birds. They must be warmly and well bedded at night.

PERSONAL.

Mr. W. H. Murray, of the Vacuum Oil Co. Pty. Ltd., addressed a representative gathering of fruitgrowers at Marion, S.A., on June 13. Mr. I. R. Adams presided. Mr. Murray dealt with the life cycle of the various insect pests which affect citrus and deciduous fruit trees. He also demonstrated the way to make use of combination sprays in general use.

INTRODUCTION OF PLANTS FROM QUEENSLAND.

Regulations Regarding Inspection.

Several cases have recently come under the notice of the N.S.W. Department of Agriculture where importers of fruit, vegetables, etc., by road from Queensland have failed to arrange for the produce to be inspected at the border, with the result that they have been prosecuted,

and substantial fines inflicted. The attention of importers is directed to the fact that under the provisions of the Plant Diseases Act the introduction of fruit and plants (including vegetables) into this State, from Queensland is prohibited, unless notice of the arrival of such produce is given to the Department's Inspector within 24 hours after its arrival at the place of entry, and a permit for its importation has been obtained from him. Failure to comply with the law in this respect renders the offenders liable to a heavy penalty.

The places of entry for fruit, vegetables, etc., by road from Queensland are Tweed Heads and Wallangarra, and the inspectors at those centres are Mr. A. C. Green, Boyd's Bay Ferry, Tweed Heads, and Mr. S. C. Todd, Railway Station, Wallangarra.

Rockhampton

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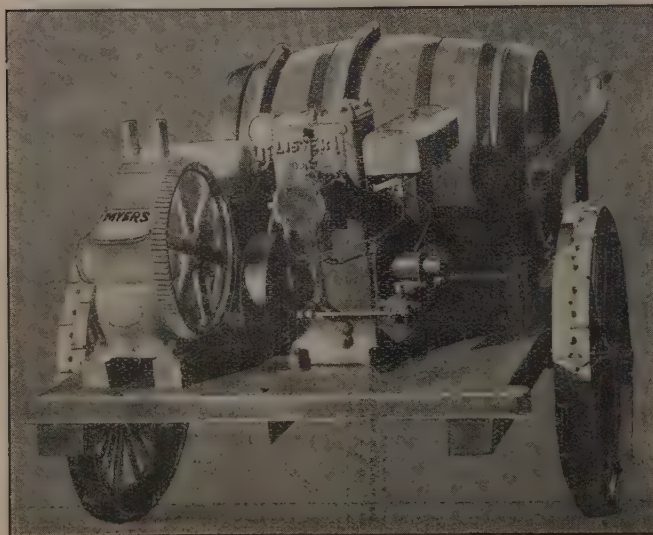
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"The Fruit World," Box 1944
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Suitable for Guns or Hoses.

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HOBART

PRUNING FRUIT TREES.

The characteristics of the tree must be taken into consideration when pruning. For example, Peaches bear only on last year's growth, and, unlike the Apple and Pear, do not develop fruit-bearing spurs.

In old Apple and Pear trees these fruit-bearing spurs sometimes need thinning out to prevent their becoming too crowded.

Factors which influence the growth and development of trees, such as soil, location, character and influence of stock, manuring, cultivation and spraying, all play their part in deciding the extent and nature of the pruner's operations and make it difficult to lay down any hard and fast rule.

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Campaign Successful in U.K.

Similar Campaign Needed in Australia.

During the past six years £54,000 has been spent on advertising Australian Apples and Pears in Great Britain. Of this sum the growers and the trade have contributed £25,000, and the balance has been provided by the Commonwealth Government. The results have been well worth while, as the consumption of fruit is steadily increasing in the Old Country.

But what about Australia? Our main market is here. A campaign on similar lines is just as necessary. More so, in fact.

Think it over.

Boarding House Dialogue.

Mr. Musch (facetiously): "This steak is like a warm day in June, Mrs. Borden-Lodge—very rare."

Landlady (crustily): "And your bill is like March weather—always unsettled."

Black Leaf 40

Death to Aphis (Plant Lice) and Other Insects

Aphis and other insects are common enemies of the orchardist and gardener. Protect your trees, vines and plants with "Black Leaf 40."

In the Orchard and Garden

"Black Leaf 40" is recommended for killing woolly aphis, apple aphis, peach aphis, aphis on roses, other flowers and vegetables, mussel scale (young), Harlequin fruit bug, holy or cross bug, oleander scale (young), San Jose scale (young), red scale (young), red mites (Summer), rutherglen bug, pear and cherry slug, thrip, fine scale (young), pea mite.

In the Poultry Yard

Paint the roosts lightly with "Black Leaf 40" just before the birds go to roost. Body-lice will be destroyed while the flock roosts. To help prevent mites from attacking fowls, tie or tack a piece of heavy cloth around ends of roosts and roost supports and saturate with "Black Leaf 40;" spray inside of house with "Black Leaf 40," three tablespoonsful to a gallon of water to which soap has been added.

"Black Leaf 40" has the endorsement of Agricultural Colleges, Experiment stations and orchardists. It is the World's leading aphis specific. It also kills the young larvae of many chewing insects when sprayed upon them so as to wet their bodies.

Kills By Contact and By Fumes

"Black Leaf 40" has a dual action. It kills plant insects both by fumes and by contact. This double-killing action makes "Black Leaf 40" unusually effective in insect control.

Paint Roosts . . . Kill Poultry Lice

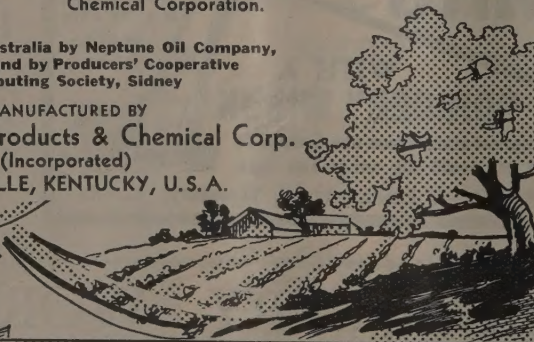
Poultrymen find that if they paint the roosts lightly with "Black Leaf 40" the lice on the birds are killed. The heat from the birds' bodies releases fumes which destroy lice, as the flock roosts on perches.

Genuine "Black Leaf 40"

"Black Leaf 40" is registered by us in Australia and New Zealand as a Trade-Mark and Brand. Users are familiar with the red labelled packages and the black leaf design prominently displayed thereon. Beware of imitations. Insist upon genuine "Black Leaf 40," made only by Tobacco By-Products & Chemical Corporation.

Distributed in Australia by Neptune Oil Company, Melbourne, and by Producers' Cooperative Distributing Society, Sidney

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DRAINAGE OF ORCHARD LAND.

In heavy retentive soils, the laying down of underground drains is a practice that can be strongly recommended on orchard land. It permits of deeper rooting of the trees, allows of the soil being worked more quickly, and prevents souring.

Tiled drains are of the longest duration, and, although the most expensive in the initial outlay, they give best results. Tiles for main drains should be 4 inches in diameter. It the land to be drained has a rather steep fall, the drain should run diagonally across the fall of the hill. Temporary drains can be made of brushwood; these will last a few years, and can then be replaced with tiles.

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FRUIT SHIPMENTS FOR SYDNEY AND QUEENSLAND PORTS SPECIALLY CATERED FOR.

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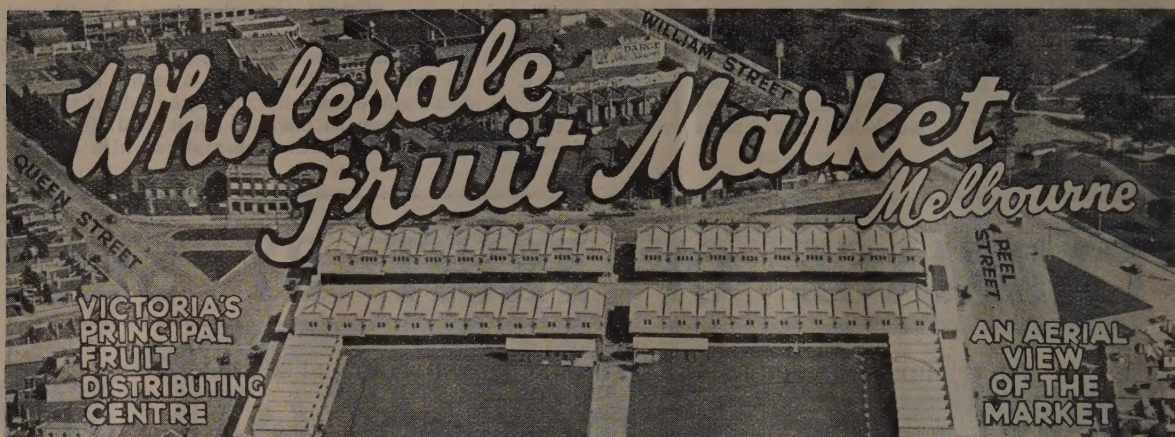
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